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Positive Contributions of Mobile Phones to Society

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SUMMARY

This report contains a study of positive contributions of mobile phones to our lives. It examines mobile phone's role in 6 countries, Brazil, China, India, Korea, United kingdom and Lithuania. Each of these countries reflect a different demographics, geography and socio-economic structure. The influence of mobile phones in these societies are sometimes very common but also is determined by the differences.

The report presents a comparative analysis of contributions at four three different levels:

1. Contributions to personal and primary relations
2. Contributions to the society in general, and
3. Contributions to the economies

Six major contributions are identified and detailed for the personal and primary lives: Connection for communication and accessibility; Convenience bringing efficiency, especially our daily lives; Charisma reflecting influence on identity and empowerment of individuals; Companionship helping us to have fun; Care providing safety and care for others; and finally Culture of its own. For the contributions to society, it is argued in detail that Mobile phones help to create an informative, connected, culturally innovative, participative, and converging society. The contribution to economies is analysed in terms of creation of a mobile welfare. According to the observations from countries examined, four areas with major direct influences are identified: infrastructure development, better business practices, improvements in the public sector (mobile government) and contributions to collective welfare of the individuals via social responsibility.

The report concludes with a discussions of findings and ends with a caution that unintended consequences of adoption of technologies may come in two sorts: constructive and destructive. Though this report focused on the positive, negative unintended consequences of mobile phones are also a reality.

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INTRODUCTION

Communication is essentially a need for cooperation. This fundamental need of human beings is being supported with recent revolutionary developments in the information and communication technologies (ICT). ICT is moving towards being more wireless and mobile phones using cutting-edge wireless technologies and the Internet are playing increasingly important roles in our lives.

Most of the companies working in the mobile industry are no longer an IT or telecommunications companies. They rather promote a life-style, which adds value to individual life of all, the business life and the society as a whole. Mobile phones primarily provide benefits to improve the quality of life of individuals, their relations with friends and the family. While mobile telecom sector is a global business, it also helps the creation of local and sustainable businesses. This has a positive impact on the economic growth of countries. This impact may be felt more on initiatives such as poverty reduction in less privileged parts of the world.

Mobile phone adoption in many emerging markets is fast and at a significant level. There are around 2.5 billion subscribers around the world. With the existing pace this number will reach to around 4 billion this year and, in a short time, around 85 percent of world's population

should be expected to benefit from mobile services. Although direct contributions of subscribers to the telecom industry may not be in great proportions, but the impact of these mobile services on wider individual and collective lives, and the business sectors will be incredibly significant.

Mobile phones' direct offers to the individuals and the society include a connected, intensively communicating society and a convenient life-style. An extension of these benefits influence the ways we aim to improve and sustain our society. Especially for developing countries, mobile phones can help to create a converging society with more equality in distribution of the wealth. Mobile telecoms contributions in this respect include increased affordability and opportunities for making various business sectors more efficient and creating new business opportunities.

In this report, an analysis of positive contributions of mobile phones to the society will be presented. This analysis will be based on examination of influence of the mobile phones in several countries. The countries are selected according to degree of differences in demographics, mobile phone penetrations rates, scenarios for mobile phone use and applications/services provided. The countries chosen are: China, Korea, India, Brazil, UK, and Lithuania. The report is organised as follow. After presenting the research context , the selected countries, and the background of mobile technologies and its relation within the society of that country will be overviewed. Then a detailed account of contributions of mobile phones will be presented at three levels: 1) contributions to individuals and primary relations, 2) contributions to society at large, and finally 3) contributions to over all economies. Whenever there is an opportunity, a comparison of common contributions will be made among the countries examined. The report will end with a discussion and conclusions.

Research Outline

This report is derived from separate individual reports containing contributions of mobile phones for a number of selected countries. Therefore, it mostly contains comparative examples of country based contributions. The report has following structural components:

1. *Introduction of the country and current status of mobile telecoms* by addressing for example:

    a) History of mobile phones in the country
    b) Mobile Telecommunications Market

c) Mobile phone adoption in the society
d) The organization of the report

2. *The Nature (common characteristics of) the interaction/relationship between the mobile use and the society of the country.* What are significant issues/reasons that make the individuals buy and use the mobile phones? What are the most distinctive and apparent implications of mobile adoption for the individuals and the society for that country? These issues involve a general outlook and explanation of possible reasons to asses why mobile phones are being used by the society in the way it is. It is an outline of the main drivers and major reasons of mobile penetration in a particular country.

3. *Positive influence or contributions to the personal life*. This includes examples of applications and uses of mobile phones, which drastically contribute to the personal lives of individuals. Some of the potential areas may include:

    - accessibility,
    - liberation,
    - safety,
    - identity, status and confidence,
    - efficiency in communications,
    - fcommunications and connectedness
    - fun,
    - privacy,
    - organized life,
    - time management,
    - efficiency in daily activities, etc.

4. *Positive influence or contributions to the primary relations.* This issue represents any improvements in the relationship of individuals with their family and friends. This may be related to the personal improvements in the previous section but the emphasis is not on the person but more on the relations with family and friends (i.e. those people that we know somewhat closely).

5. *Contributions to the society at large and positive changes in the dynamics of the society.* This involves contributions such as:

    - efficiency in communications
    - accessibility of information
    - socialization
    - political and social organization
    - youth and new culture, etc.

6. *Emergent positive effects to the country and the creation of mobile welfare*. These are those planned contributions as part of introducing a new technology to the countries as well as those which are not so much expected emerge from the over all efforts in this area. Examples may include:
    - a mobile economy
    - infrastructure improvement
    - employment
    - new and improved businesses
    - empowerment and m-democracy
    - m-politics
    - policy making
    - mobile culture etc.

7. *Conclusions and discussions.* This should summarize the whole work presented above and emphasize the key points presented in the previous sections of the report.

These issues that are outlined above are not clearly separable. For example there is a strong link between contributions to personal life and the primary relations. Every effort is made to consider this overlapping and inter-related nature of the issues in interpreting and providing a context for the contributions. The separations are made in order facilitate the analysis and the understanding for the topic at hand.

Aims

This project aims to identify the positive contributions that mobile phones bring the individual and collective life in society. For example mobile phones improve the convenience in our everyday life driven by ever-changing evolution of mobile phone. Mobile phone allows us to carry around such functional applications for our daily necessities such as camera, wallet, scheduler, and keys. They also improve the communication and interactions among the same age group, different age groups and within the circles of family and friends. The purpose of this research to uncover such contributions to the society and present how these contributions echoes in wider areas such as welfare and economic development.

Methods

This report contains a comparative analysis of contributions of mobile phones to the society. Thus, a number of countries according to degree of mobile phone penetration and variety of mobile phone uses are identified. For each of those countries being examined, a researcher, preferably a citizen of that country speaking the language, surveyed various secondary data sources such news, the Internet, books and reports. In addition to gathering information from these secondary sources, whenever possible, interviews of close friends and family and individuals with a good knowledge of mobile phones and their uses in your country may be interviewed.

The research has been carried out in three stages:

Stage 1: First**,** a short background on the country and the use and penetration of mobile phones are reported. Then as many secondary sources as possible are examined to collect information regarding the positive influences and contributions of the use of mobile phones for the society of the specified country. A short report outlining the main contributions, the strength and sustainability of mobile phones in each society with evidences or examples of observations are presented. In some cases researcher of the country studied could chose to informally interview friends and family members or other experts and informed individuals, as appropriate.

Stage 2: In order to come up with a systematic presentation of positive influences or contributions each report is analyzed and compared with the reports from other countries. A more systematic but a few interview questions were also designed and are used in having a set of improved interview questions (as compared to the stage one) with selected individuals from the chosen country. At this stage, a more concise and systematic report is prepared. This structure was presented in the previous section on research outline. This report established a categorization of the contributions of mobile phones to the society of each country as a basis for comparisons.

Stage 3: In this phase of the project, all reports from various countries are consolidated into one, with appropriate analysis and interpretation of the contributions.

This report therefore is a result of stage three and contains analysis and comparisons, which will be presented in the rest of the report. After introducing mobility and the mobile society in each of the countries, the presentation will follow the three level analysis constructed at the second stage of the research process: contributions at the individual or primary relations level, contributions to the society and contributions to the economies.

MOBILITY BACKGROUND FOR THE COUNTRIES STUDIED

In this section, for the selected countries, a brief about the mobile infrastructure and the mobile phone penetration will be presented. Each section focusing on one country reports on three important issues for that country:

1. Introduction of the country's mobility foundations.
2. Brief overview of the facts and figures about the mobile industry and mobile penetration -particular facts and figures that are important in understanding the background for mobile phone penetration and the use in that country.
3. Overview the interaction between mobility and the society.

This section will present the reader the important recent developments in mobility for each country studied and therefore will make up a foundation for later analysis of contributions of mobile phones to society in general.

Brazil

Brazil is a highly populated, large country with different geographical and socio economic conditions. The number of mobile phones in Brazil nowadays accounts for a total of 94.9 millions devices, with a density of 50.8 cell per 100 inhabitants. Anatel is the Government Agency responsible for the cellular telephony regulation in Brazil (Anatel – Agencia Nacional de Telcomunicacoes). Up and coming cellular operators need to acquire an authorization - that is called "the Personal Mobile Service (SMP)".

	Operator	Controller
1st	Vivo	Mazônia a Portugal Telecom.
2nd	Tim	Mazôni Movil
3rd	Claro	Telemar
4th	Oi	Citi, Fundos Opportunity
5th	Mazônia Telemig Cel.	Brasil Telecom
6th	BrT GSM	Brasil Telecom
7th	CTBC	CTBC
8th	Sercomtel	Prefeitura Londrina – Copel

Table 1. Cellular Operators in Brazil

There are eight cellular operators in Brazil consisting of Vivo, Tim, Claro, Oi, Telemig/Amaz, Brt GSM, CTBC and Sercomtel Cel([1] [2]). Vivo holds the largest market share and the company is controlled by Telefonica Portugal Telecom. The Table above shows who controls who in Brazilian mobile arena. The market shares of each of these cellular operators in Brazil, however, are quite different as shown in the chart below.

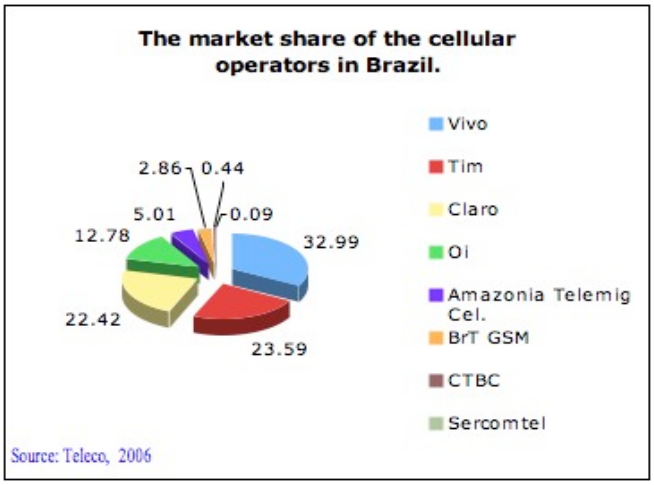

Figure 1 Market Shares of Telecom Operators

The following chart shows how fast the number of mobile phones in Brazil increased from 1994 to 2005. As it can be observed from the chart, the recent years show a fast and steady growth in mobile phone penetration very similar to what is observed in many other countries.

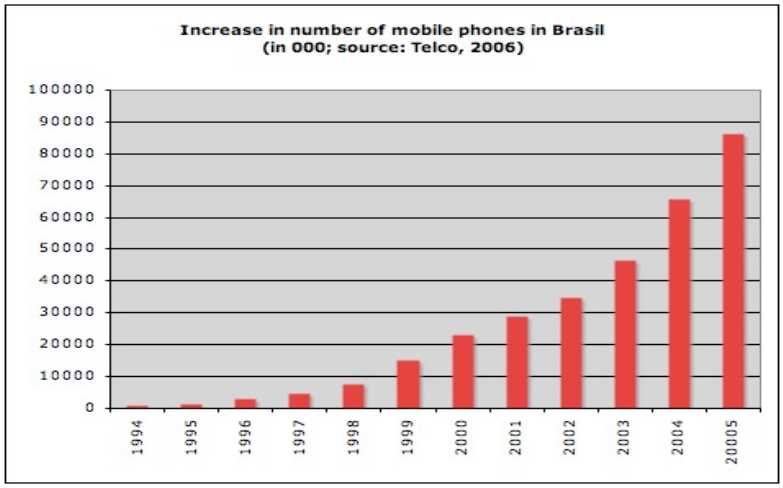

Figure 2. Mobile Phone Penetration in Brasil

Brazil adopted the 1.8 GHz spectrum band for national wireless system in year 2000, making it a member of the GSM Association[3]. The trend employed at the turn of the century was said to "bring the full range of GSM's benefits, from seamless roaming to cost effective and highly user-friendly features and services, such as Short Message Services (SMS)."[4] As an addition, it made Brazilian mobile users accessible to roaming services provided throughout the world and introduced better mobile technology with the introduction of Third Generation (3G) technology. Likewise, Brazil's economy benefited from tourists and visitors coming to visit and use the newly adopted technology. It is said that some "three-quarters of a billion roaming calls [were] being currently made every month"[5] in Brazil. Almost four years later, Alcatel introduced the 3G Reality Centre (3GRC) in Brazil with a focus on end-to-end multimedia solutions "using a fully open infrastructure, independent of technology standards, and based on attractive local content for Latin American end-users"[6]

According to Folha de Sao Paulo, one of the most important Brazilian newspapers, the number of mobile phones were greater than the number of land lines in 2006. There are indications that the mobile phones are replacing the land-line phones and each member of the family has a mobile phone. According to IBGE (Brazilian Institute of Geography and

Statistics), in 2005, 37% of people from 10 years of age and onwards have a mobile phone, and since 2005, the number of mobile phones owners is larger than the number of people with the Internet connection[7].

With the increased need for information, in order to promote mobile accessibility, the Brazilian government has put out several policies, such as the Universal Service Funds. Such policies target regional disparities of the country, where the South is wealthier than the North. Southern income is three times greater and the North's and consequently, the South has three times more mobile subscriptions than the rest of the country. Therefore, one of the biggest challenges to Brazil's mobile firms is promoting *affordability*. As such, many companies have "innovative rate programmes and discounted handsets".

With such policies to promote affordability, mobile phone users are growing and spreading all over the country. The working class can buy their mobile phones in retailers by instalments, where sophisticated devices may also be available to them. The use of a sophisticated phone then becomes a symbol of status and the user changes his/her mobile phone according to new tendencies in terms of design, functions, colour and other common reasons. The main reason, however, for such increase of mobile phone users is the introduction of pay-as-you-go mobile phones, where the system allows users to plan their expenses (Souza et al, 2006).

Despite the fact that the users of mobile phones are increasing, the use of services through mobile phones is not rising at the same level. According to Souza et al (2006) only 5% of mobile phone operator's turnover is related to services. One of the main reasons is the high price of these services and the lack of information about how to use them (Souza et al, 2006).

With the introduction of 3G in Brazil, services can provide: "audio/video, messaging and payment, and services as watching your favourite soccer team goals or movie trailers premières, selecting and booking your hotel, playing interactively with worldwide players, setting up a dinner wia making reservation in your favourite restaurant, as well as accessing local street maps for guidance."[8]

The penetration of mobile phones and the user adoption in Brazil seem to follow the general trends in the world. There seems to be up-to-date technology and various applications and services. The introduction and adoption of these services has not been as widespread as the number of subscriptions due to affordability. Brazil's disparity in population

demographics, income distribution and dependence on geographical conditions seems have closer link to the way mobile phones are being used in this country.

China

After introduction of mobile services into China in 1980s and the rapid development of mobile telecommunications in 1990s, mobile phones, as a communication tool, have been influencing the way people communicate and live. With the constant development of mobile technologies, it seems that with mobile phones, in addition to making voice calls, people can do many things: sending/receiving messages, listening to music, taking photos, checking weather, chatting and so on.

Modern science and technologies, computers and Internet, have entered into every aspect of Chinese life. Positive and negative influences of these technologies and changes they bring to the way we live have always been debated. Cell phones, as a hybrid of computer and the Internet technologies, have been making an influence to people's life in a wide scope and are predicted to change the society in an even larger and deeper way in the future. The role of cellular has exceeded the its intended use as a communication tool.

China is a developing country with a population of 1.307 billion people by the end of 2005 figures. It covers an area of 9.6 million square kilometres, ranked the fourth biggest country in the world.[9] The Table below shows its basic economic and demographic indicators. It is worth noticing that due to the China's huge geographic area, different region has different economic development level. East China, for instance, is more developed than the middle and the western. That means the development of telecommunications in eastern China would be expected to be better than that in the middle or in the western China. This in turn indicates a higher penetration and more diverse applications of mobile phones in the Eastern China.

Population (Million)	1,307.6
GDP (Billion Yuan)	18,232
GDP Per Capita (US$)	1,700
Unemployment Rate (%)	4.2
Main Telephone Lines Penetration (%)	27.00
Mobile Phone Penetration (%)	30.30

Table 2. Basic Indicators for China[10]

In order to prepare for the intensified competition in the post-WTO era, Chinese government had restructured the telecom sector since mid-1999. Until 2002, when the further reorganization was finished, a "5+1" model has been established in the telecom operation market, which now includes China Telecom, China Mobile, China Unicom, China Netcom, China Railway, and China Satcom, as the "plus one" telecom operator in China. Among them, only China Mobile (CM) and China Unicom (CU) are licensed to offer mobile services. There is no single one operator in China being allowed to provide full telecom services including fixed and mobile network services.

Owing to the existence of only two operators in the mobile telecom market, there has been a duopoly in China: CM and CU. The huge market potential drives the competition between them. As the government restricts the technologies they use, their competition mainly lies at differentiated services based on their different underlying technologies and special offers to users.

At the beginning of the mobile era, there were analogue and digital signal technologies coexisting. Users actually could only make and receive calls with analogue mobile phones. At that time, however, it was good enough to get connected to the people on the move. Analogue mobile phones were completely removed from China's market in 2001[11] Since then, digital mobile technologies have been occupying the whole market. GSM was used as the main 2G mobile technology, while at the 2.5G era, GPRS and CDMA are used respectively by CM and CU. With digital mobile phones based on GSM, GPRS or CDMA, users can send/receive text messages but also surf the Internet, download ring-tones, etc. Now most of mobile applications in China are based on the 2.5G technologies.

Following a significant market growth, mobile phone penetration and its use in China witnessed an accelerated growth over the past several years. In China, cellular users were first time counted more than fixed line subscribers in 2003. According to Ministry of Information Industry (MII), by the end of June 2006, the amount of cellular users has reached 426 million, the growth rate per month in 2006 has been 5.8 million; and the mobile phone penetration in China is 30.3 percent[12].

Short Message Service (SMS), Multimedia Message Service (MMS), Customized Ring Back Tone (CRBT) are the most popular mobile services in China at the moment. Although there might be some non-normative operations due to the immaturity of the markets, it is fair to say that

these three services are the services Chinese mobile subscribers use most, and the number of users of these services remains a steady growth.

At the end of 1980s when cellular just emerged in China, they acted mainly as a symbol of identity of the rich, since there were not many people who can afford them because of their extremely high price. At that time, as mobile telecommunications were rather poor and the network of the public using cellular had not had been set up, the government officials and heads of business executive were the main mobile user group, and they just used those phones with 'huge' size for work purposes using few basic functions. Thanks to the rapid development of mobile technologies and electronics in 1990s, currently, affording a cell phone or even more is no longer a problem for most Chinese people in developed areas. The pocket size of cellular and the diversity of the phones' functions attract many people carrying them around anywhere anytime. Mobile phones have enjoyed a more popularity than landlines over the past decade in China. With their mobile, users can make/receive calls anywhere, listen to music, play games and go to the Internet. Not only has the vast growth of technologies been witnessed, but also a mobile community integrated with relevant industries, - such as service providers, media content suppliers, and even some internet companies,- and the large user network has been established in China.

A trend of mobile usage from personal communications to social group networking, and information and knowledge sharing within the society can be seen. More recently, providing more customized information relavant to subscribers is becoming a tendency for the future mobile applications which can benefit back to individual's life-style using China's or even global knowledge base.

India

Mobile phones have urged India into a new, non-retractable mode of communication where they come to play an indispensable role in the contemporary society and for the people in every stratum. From local vegetable vendors and milkmen, to students and business leaders, the Indian society is making use of the benefits of mobile communication in various aspects of life ranging from business to personal. This new 'mobile culture' has altered society and its functioning in many ways in a time-frame of just over a decade. It has become a part and parcel of the society. Its spread also boosted due to mobile phones providing a faster,

more efficient and convenient mode of communication in a country which - although suffering from low-quality infrastructure and communication network - is striving to catch up with the economic dynamism of developed countries.

Although India's telecom sector was liberalized and opened to private sector participation in 1992, it wasn't until two years later that the licenses for providing cellular mobile services in metropolitan cities such as Delhi, Mumbai, Kolkata and Chennai received government approval. Kolkata became the first metropole to have a cellular network in 1995. Other milestones in India's telecom history include - the establishment of the governmental Telecom Regulatory Authority of India (TRAI) in 1997 followed by announcement of the first National Telecom Policy in 1999. According to TRAI, at the current levels, "cellular networks cover about 1,700 towns (out of 5,200), covering 200 million (just about 20%) population. By 2006, the cellular networks were expected to cover 350,000 (out of 607,000) villages, covering 450 million people"[13]. Total number of connections over the last 4 years grew at an average of more than 20 percent. This makes India, one of the fastest growing telecommunications systems in the world.

According to Global Knowledge[14],"mobile telephony gained acceptance faster than legacy technologies (i.e. the Internet) largely because the marketers have worked with the government in influencing policies and by adopting aggressive service pricing." Currently, there are eight service providers in India. The shift in technology, to 3G with 3GSM (WCDMA), is reported to be at an advanced phase with 46% increase in the number of 3GSM subscriptions[15].

India's mobile market displays widespread diversity - geographically, socially and economically. Popularity of cell phones is mounting at break-neck speed. They are already a part and parcel of urban cities and they are now fast breaking into the more conservative rural areas due to benefits provided such as low-cost equipment, promotional network schemes, and independence from detailed physical infrastructural support – apart from the general plusses of speed and convenience. According to a survey by leading telecommunications magazine, Voice and Data, 45 million people owned cell phones in India compared with 44 million people who had land lines, making mobile phones the devices for India's common man and fixed phone lines those for the rich[16].

"We used to think it was the other way round… This is not just a revolution in terms of growth in the market, it is also a dramatic shift of power to the consumer in India," a businessman named Mr Mittal has

been quoted as saying in Ideas Bazaar[17], a blog that discussed the latest mobile practices in India.

This shift of consumer target to India's middle-class majority – residing in non-English speaking, still-to-be-tapped pockets - has even spurred leading equipment manufacturer Nokia to start 'localising its SMS services' by introducing new mobile phones with keyboards in Hindi. Nokia has also tied up with leading service providers in India, such as Airtel, Hutch and Idea, to provide Hindi brochures and recharge coupons to help users to get used to Hindi SMSs. This service – titled 'Mera Nokia' - is later to be extended to regional languages such as Bengali, Kannada, Tamil and Marathi, reports Ideas Bazaar.

An effort to support the low-cost interests of the middle-class market in India has also seen several informal handset repair shops springing up all over cities and towns[18]. At these shop repairers can "strip and rebuild a mobile phone in minutes".

Besides the rural population, mobile phones have come to assume significant importance in urban societies with various age groups using mobiles in their own ways to suit their individual needs. While lower-end workers such as milkmen and vegetable vendors make use of the cell to organise their hectic work schedules, students are seen to use them to enhance their social lives. Several parents insist on equipping their children with mobile phones for their safety, while several political parties have started a form of mobile phone campaigning for wider reach in society. Mobile messaging has become the latest fad for teenagers in a society where "dating still does not get widespread parental approval"[19]. Unofficially though, 'SMS world-record with 182689 messages in a month', are recorded in India[20]. This shows India's new breed of 'metro-centric lads' as a well-earning, fashion-conscious youth with "his finger closely on the pulse and the latest mobile phone in his palm. It is the personification of the new, metro-centric India."[21]

Korea

Similar to their use all around the world, mobile phones in Korea are not just a tool for communication between two people, but are rather a multi functional medium: the functionalities of mobile phones are extending to include, camera, internet, MP3 player, voice recorder, video recorder, storage, purse and so on. These new extensions of functions and

widespread uses, added with fast penetration, mobile phones have become prime technologies influencing Korean society significantly over the last decade.

Korea started the first mobile communication service between some government organizations in Seoul, in 1960, by manual switching system and then in 1961, the service to citizens was launched with around eighty subscribers only.[22] This old-fashion mobile facility was offered to the rich and the business users.

From 1990s onwards, in parallel to the developments of mobile industry in the rest of the world, Korea quickly adopted the mobile technologies. Similar to many countries in the world, mobile phones have been easily accepted by the society over the past few years, and now in 2006, the number of total mobile subscribers is reaching up to 39,703,210[23]. This means that more than 81 percent of the South Koreans[24] are using mobile phones.

Various reasons influence such high adoption of mobile phones in Korea. Mobile communication has contributed both to individualism and collectivism in Koreans' lives. People's lives are getting more individual and private. On the other hand, Koreans traditionally give high importance to collectivism as well. One of the strong characteristics of Korean society is that Koreans try to build up their social connection based on blood, region and alumni relations. Many people highly depend on such relations in carrying out normal way of life. Mobile communication has enabled Koreans to enjoy both an easy connection to the other people and also to have more privacy.

In addition, Korea has experienced big economical and technological changes in a short time period compared to other countries. Therefore, Koreans tend to adopt new technologies and change quickly. This adds another reason for the high penetration of mobile phones in Korea.

Another reason is Korean government's policy on ICT (Information and Communication Technology) industry. ICT industry has taken a crucial part in terms of quantity and quality of impact on Korean economic growth during the last decade. Korean government invested money and effort in building up ICT infrastructure within Korea and aimed to take leading initiatives in the global ICT market. In this context, mobile phone manufacturing, and telecommunication network companies made significant contributions to these efforts, which in turn, lead to increased mobile penetration in Korea. The high competitive market of telecommunication network industry resulted in introduction of subsidy

by the telecommunication network companies to enable citizens to purchase mobile phones and increase their subscribers from late 1990's. The total subsidy from three major telecommunication network companies was up to about three billion dollars in 1999. Besides, they spent money on marketing twice as much as the total investment in equipment including R&D (Kang, J., 2005).

In the same way, with the efforts of the government, the concept of "Ubiquitous" has been the most significant agenda for the Korean society over the last few years. The government has coined "U-Korea" as its motto for the core policy direction, and has been focusing on realisation of U-Korea. As a result, now in 2006, the efforts for creating Ubiquitous society seems to paying in Korea and are helping mobile phone adoption to increase.

Lithuania

A year or two ago there was a mobile network advert in Lithuania picturing a small boy running from one part of a small town to another passing on the message. Then another picture showed how mobile telecommunication makes reaching important people, and sharing information so much easier and less time-consuming. So simple and self-evident, but the message is clear: mobile industry has in many ways improved the quality of life and transformed the different ways in which members of the society interact. This section will offer a short introduction to the structure of mobile industry in Lithuania; then it will navigate through the positive impacts mobile industry has had on Lithuanian society that have emerged in the particular context of recent independence, organization of society, behavioural practices, etc.

Lithuania finds itself a host to three major mobile network providers, Bite GSM, Omnitel, and Tele2, that entered the market in the early to mid 1990s after the country announced its independence and redirection from a socialist to a capitalist economy. All three companies have foreign shareholders – Danish for Bite GSM and Swedish for Omnitel and Tele2. This Scandinavian origin might be one of the main determinants for the social policy these companies adopt that becomes a significant contributor to the welfare of the society they engage with. Two major mobile phone companies – Bite GSM & Omnitel – that occupy over 80 per cent of the market now share approximately 3.7 million customers in Lithuania.[25] Mind, however, that many Lithuanians use more than one network provider (i.e. 1/3rd of Bite's clients use other providers as well),[26] which is not reflected in the number of users presented above

(which is higher than the Lithuanian population, around 3.4 mill!). This is the result of a robust increase in users, e.g. by almost 40 per cent in 2004 alone.[27] The number of SMS sent in 2006 was 2.2 times higher than that in 2005.[28] Such a popularity of mobile technologies can mainly be explained by the competitive prices mobile network providers were able to offer vis-à-vis fixed line rates, which have almost equalized, and the obvious convenience of mobile phones. This change has affected a lot the way Lithuanians conceive of mobile phones. This trend is discussed in more detailed below, however, it seems that today Lithuanians cannot imagine their daily life without a mobile phone.

Lithuanian mobile network providers strive to introduce the most innovative technologies to the country. Although data transmission over mobile network was only introduced in 2001,[29] there has been an amazing spread of new services associated with mobile technology. Mobile banking, car parking payment, home security, mobile locator, and mobile Internet are just a few among the many possibilities provided by mobile companies in Lithuania. Mobile network covers almost all territory of the country – around 98 per cent. Needless to say, such a rapid adoption of mobile technologies into the post-socialist newly emerging market economy has had profound effects to all individual, society, and the country. The paragraph below outline the major positive changes in Lithuania.

First of all, let us look at what is so distinctive about the mobile phones and people in Lithuania that make the two go so well together. It seem most appropriate to start by outlining the fundamental changes Lithuania has experienced in the last 17 years to better capture how that has influenced consumer preferences. For 50 years prior to independence in 1990, Lithuania was under the rule of the Soviet Union, which with the latter's socialist outlook meant a dictated, fully state-regulated economy, social activities, everyday life. There was censorship of what people could say, very clear rules about what they could do, careers were allocated – in short, the concept of freedom of choice was barely existent in the society. 1990 manifested the birth and prosperity of such ideals as freedom of speech, choice, consciousness, market liberalization, self-governance, self-employment, etc. For the country entrance to the global markets meant reconsideration of such concepts as time and space – the former became profoundly scarce and the latter uncommonly undefined. For an individual this change translated into greater flexibility of mind, unprecedented mobility of people and ideas, ever-growing opportunities and choices that were now open to everyone. These altering formations of relationships between individuals, individuals and society, and the society and the state had profound effects on the admissibility of mobile

technologies into the country. The following paragraphs outline main reasons for the remarkable scope of use of mobile phones in Lithuania. The first one looks at the changing nature of individual lifestyle and changing needs and desires that correspond to these changes. The second paragraph goes deeper to explain how both political and economic changes are altering the ways people interact and what new opportunities mobile technologies are offering. The last paragraph shortly presents a straightforward explanation of the kind of an industry mobile technologies occupy in Lithuania.

First and utmost, the use of mobile phones is highly influenced by the changing concept of time – it is scarce, it is desirable, it is sacred. People now work longer hours, leisure has become more scarce, there is more mobility in people's lives with relation to studies in other cities, let alone countries, more flexibility at work, more independence in everyday routine, etc. In this context, mobile phones help to save time, make others accessible most of the time, makes people feel secure when they are constantly moving to new places. Indeed, most people cannot imagine their life without mobile phones anymore. According to an analysis carried out in November 2005 by the major market research company TNS Gallup on consumer behavior, almost 51 per cent of respondents said that they consider mobile phone essential and feel unconfident without it at hand.[30] Almost 15 per cent people thought that mobile phone was the most important asset in life (only 8 per cent thought it was home!).

These changes that constitute the constant shortage of time and the need to always be accessed have also altered the ways in which people conceive of communication and their independence. The 'marketization' and import of the Western way of life have made people more independent, but also more individualistic. In this way mobile phones allow communication with little personal contact, which for some people is preferable for they can maintain their privacy while still allowing to be reached. A psychologist Dr. Edita Dereskeviciute suggests that 'Mobile phones are changing their original purpose – now they have become a tool for communication, not simply connection. This has had a tremendous effect on the nature of people's communication, as well as the possibilities of their communication, its spectrum, and its frequency.'[31] This is indeed true for friends and family. When people are demanding more freedom in what they do, mobile phone becomes the only and the most important tool of getting hold of the people you care about. Finally, mobile phones have allowed for more creativity and freedom in defining oneself. Downloadable tunes, screen pictures, mobile phone accessories, etc. have started to play an important role in the

form of defining one's style. And more generally, the convenience of having a small simple gadget everywhere you go at hand as soon as you might need it has made life so much easier and so much more efficient. In short, the modernization of a Lithuanian life has claimed liberalization, independence, and efficiency, which all add up to make the use of mobile phones essential to everyone.

Society-wise mobile phones have opened new ways for social activities and participation in social life. The use of mobile technologies is associated with the easy and quick flow of information. It offers a quick access to the list of cultural, social, sports events at any time in any place. It also offers an easy way for people to get involved in these activities: through voting on the phone for song contests, betting on sport matches, donating to a charity, participating in polls, creating art and so on. Having a mobile phone makes people more secure through that they can access emergency services, or call their friends in a case of an accident with a press of a button. In a similar way the use of mobile phones have decreased the risks associated with businesses. For example, people can get information on the reliability of companies they are to have business with on their mobile phones. All these innovation have added to the dynamics of the society making by converging social activities with modern technologies.

On the state level mobile technologies have become one of the major industries conquered by the international enterprises. With the privatization of state industries and introduction of many more new businesses in the country, foreign capital has been driving trends. Unsurprisingly then, it was mastered by the Scandinavian giants, for which Lithuania offered an easy access to a small but loyal market. The competition that rose from the presence of a multiplicity of foreign companies in the country has resulted in an abundance of advertising, which has made the acquisition of mobile phones even more popular. On the one hand, most of the companies are offering deals to hand out mobile phones at a symbolic price of 1 Litas (equivalent to about 20p) for signing a contract. These kind of initiatives have made mobile phones affordable to almost everyone and easy to get. On the other hand, the advertisements construct the understanding that having a mobile phone is not only a must in a modern society but without them people are not 'that sociable, that interesting or cool'. According to TNC Gallup, operators of mobile network occupy the second place amongst the most advertised products in Lithuania. Top-up connection and mobile Internet are also in the top 10 this year.[32] All these developments have made the use of mobile phones much more than just the means of communication – for many they now define the major part of everyday life.

Finally, the use of mobile phones has made society more aware and interested in the new technologies. On the one hand, society had become more aware of the existing technologies, and for many elderly people using a mobile phone has become a way to discover and better understand the meaning and use of computer and Internet and other technologies. The widespread use and application of mobile phones to everyday life has also contributed to making young people more eager to study technology-related subjects and consider that as their future career. Obviously, this is very important given the country's pursue of a capital-intensive economy.

The United Kingdom

UK boasts of 50 million mobile phones in use today (compared to 25 million in 2,000 and 4.5 million in 1995). But despite 40,000 base stations operating under the Global System for Mobile Communications (GSM) and a supportive national telecom policy, UK's five network operators (Orange, Vodafone, T-Mobile, 3 and O2) are largely seen as incumbent when providing market-winning facilities through 3GSM technology. Partly due to the international economic slump of the early 2000s and partly due to lack to consumer enthusiasm, 3G has not yet achieved the intended coverage in the UK. While 3, Orange and Vodafone provide 82%, 70% and 60% coverage each, respectively; T-Mobile gives 50% coverage and O2, 30% coverage. (Marini, 2006)

Despite drawbacks in technology-upgrade, UK's mobile usage and SMS traffic continues to rise, for a variety of reasons depending on the age group. Although, the mobile market is most vibrant for the below-25 years of age, its usage is welcome among all sections of the population – from marginalized communities such as old-aged and council home dwellers to office executives, home-makers and students. A quarter of the population, aged 18-24, were claiming that mobile phones are more important than the internet, TV, MP3 player and games console (Head, 2006). While under-25s are seen to use their mobile phones mostly for keeping in touch with their peer, parents use them to keep tabs on their children, grandparents to bridge relationships with their grand children and working population to co-ordinate office work from home.

SMS is the most widely used application appealing to all in the UK's modern society. "Texting is being used for an increasing number of reasons," reports Cellular[33] quoting the launch of cellular facility for the

independent radio station, SAGA, targeting the 50+ age group: "Within minutes of activating the service, SAGA Radio were inundated with texts from their listeners responding to requests from the presenters. (This) shows how versatile text messaging is, which makes it an attractive form of communication for everyone," said Mike Short, Chairman of the MDA.

The turning point of UK's telecom market occurred in 1984 with the privatization of BT, which led to "unprecedented expansion – both in terms of overall volume of business (£7.5bn in 1984, over £31bn per annum in 2000) and the range of services on offer". Policies for the 1990s set out measures to encourage growth and expansion of the telecom market and helped end the "duopoly policy", which had limited competition, and opened up choice at every level of UK telecommunications.

Some of he main milestones of mobility developments and influences on UK's telecom policy include[34]:

1. Around 1984, government shares in BT was offered to public and a second operator Mercury communications were in the market.
2. Until 1993 BT was leading the telecom operations but licenses to cable operators were also granted.
3. in 1996, Government Launches Information Society Initiative aiming to promote the beneficial use and development of information and communications technologies – multimedia - in the UK. 44 licences issued in December 1996 with the liberalisation of international facilities.
4. In 1998, EU Telecoms Networks fully liberalised from 1 January, following the UK's lead.
5. In 2000, Government proposes to bring UK up to date with the convergence of telecommunications and broadcasting industries and increasing use of world-wide electronic communications.

As one of the most economically advanced, technologically dynamic and development absorptive market societies in the world, UK sees a head-on-head battle between the popularity of mobile phones and that of the Internet. While the web provides cheaper VoIP telephony services, mobile phones are using specialist technologies for browsing the web, storing data, downloading music etc. In the British society, a dominant pub culture supports the extensive use of mobile phones in the evenings. Mobile phones have helped spend time during travel through facilities such as music downloads, web browsing etc.

Serving as a personal diary, mobile phones find extensive usage in Britain's individual-centred society where everyone values their private

space. In the 21 years of its existence, they have turned from being the bulky, heavy, and one-functional to a sleek, pocket-friendly device equipped with services such as text messaging, organizers, to-do notes, cameras, calculators and alarm clocks. Although most popular among the youth, mobile phones are finding increasing usage among all sections of society. The 60 plus say that they have improved their relationship with their grand children. The working population acknowledge the present-day flexibility of work to 'mobile revolution'. Parents claim increased confidence in letting their children out longer due to the existence of mobile phones([35],[36]). According to mobile researcher Kate Fox, mobile phones have brought in a sort of "fluid connectivity" similar, in many ways, to what existed in the old-day villages[37].

CONTRIBUTIONS TO PERSONAL LIFE AND PRIMARY RELATIONS

Along with the original idea of enabling people to talk to each other without fixed telephone line limitation, mobile phone is increasingly facilitating people's communication anywhere. Cell phone users can communicate with their family members when they were out; they can talk to friends when on the bus; they can even receive work assignments when out of the office. Additionally, users can amuse themselves whenever they get bored by using mobile, such as playing games and listen to music. They can also receive useful information that is closed to their daily life. These are only few but significant ways in which mobile technologies have improved people's life, making it a more efficient life. In addition to making personal life somewhat easier, they also make it more enjoyable and stylish.

To understand the importance of these transformations it would probably be best to imagine personal life prior to the mass introduction of mobile technologies. You would have to spend hours browsing the yellow pages or strolling the streets checking different offices looking for information that now can so easily be accessed on a mobile phone virtually anywhere. If you were away (i.e. fishing) and wanted to find out the end of an important game you would have to wait to go back home until you

can see it on TV. Now you just call your friend from the boat where you are fishing and put an end to the anxiety of curiosity.

An advert of a beer manufacturer, in Lithuania, gives one of the most vivid characteristics of how a group of friends enjoy life with the support of mobile phones. The advert shows a number of Estonians and two Lithuanian in a sauna enjoying beer. They suddenly realise one of their buddies is missing. The guys go out of the sauna, pick up the phone and make their friend listen to the sound of splashing water as one of them jumps into the lake. The message is clear for the beer consumers. So it is for the mobile phone users – you can reach your friends at any time, joke around, and have fun together, all with the help of mobile technologies. Similar examples of mobile phones' contributions to individual life may be countless. This section provides elaborations of these contributions to personal life of individuals and their primary relations such as family and friends. For example, three major ways in which mobile phones have had a positive impact in this manner may include sustaining family links and friendships; establishing your position in a group of friends; and providing the feeling of security for the beloved ones.

After examining all of the countries, it is observed that the contributions at this level are very similar from one country to another. These can be summarized using Six Cs (c for contributions) of mobile phones: for each individual a mobile phone is a *connection* builder, brings *convenience* to our lives, reflects one's *charisma*, is a *companion*, helpful tool when *caring* about others and ourselves, and creates *a culture*.

The 6 Cs of the Mobile Phones	
Connection	for communication and accessibility
Convenience	brings efficiency, especially our daily lives
Charisma	reflects identity and empowers individuals
Companionship	helps to have fun
Care	provides safety and care for others
Culture	creates a culture of its own

Table 3. Contributions in the Personal Space

All of these contributions are somewhat related to each other and have close links. In the sub-sections that follow, each of these contributions will be presented as much as one can separate these contributions from each other and each contribution will be supported by a number of examples from various countries studied.

Connection

Mobile phones have made all of us connected. This connection among individuals is always on and anywhere, which naturally implies a convenience in communication and improved accessibility. These features support various aspects of our daily routines, planning and organization of variety of activities regardless of which society we live in.

One of the major contributions of mobile phones is that mobile phones have relieved people from the restriction of space of wired-telecommunication. A mobile phone is called 'Hand Phone' or 'Portable or Mobile phone' in Korean. As its name indicates, it has given users much more freedom of space in communication. Therefore, when many people started to buy mobile phones, around late 1990's, most of the advertisements on mobile phones or network emphasized the good reception as their selling point. While these days most of the advertisements of mobile phones are selling their designs and functions. Now bad reception and being disconnected cannot be excuses anymore. And new technologies and applications are introduced increasing the ability to connect. For example, in 2006, DMB service was launched in Korea, which enabled people to watch 2006 world cup on the subway making people feel their home is changed. Later, Korean word processing software company, Haansoft, started a service for sending documents by mobile phones, which have made people's sense of office changed, and hence, keeping moving workers still connected to the main office.

People feel more and more connected in conducting various tasks. Since mobile phones are now Internet enabled, users have been able to access the information easily. Not just getting simple information by text or voice messages, but connecting to the email account or news allows people to access content-rich information. Even though the connection costs money, it is very convenient when especially people need to check specific information like movies, traffic or checking important emails on the "go".

Similarly, mobile technologies have made information easily accessible on bus services regarding times of performances, concerts of the day, flights or any other scheduled events. For example, the national air company Fly LAL – Lithuanian Airlines provides information of flights over mobile phones through mobile Internet. Users can find out information of last minute deals, games, special offers, contacts, and reserve tickets, etc.[38] This is especially convenient for people who travel a lot and do not have constant access to the Internet on their computer. In a similar way, users can subscribe for a service that enables them to receive texts with

weather forecasts, sports news, horoscope, etc. Mobile phones through WAP also allow people to read news, check e-mails, and browse the Internet. Such access to information and services becomes a definitive feature of a connected modern life – it is constant, uninterrupted, unlimited by borders or territory.

Lithuanian society is becoming more and more dynamic and the time spent with bellowed ones are more fragmental. Many people rely on mobile phones as the only acceptable alternative for keeping connected. And increasingly with time, mobile phones are becoming *the* way of communication, not simply an *alternative*. With ever-expanding urbanization in Lithuania when people seek education, jobs, and better a quality of life in the city, mobile phones are the most important gadget that helps to maintain friendships and contact with people left behind. A successful businesswoman K. Brazauskiene says that she always has her mobile phone at hand: 'I never switch it off, it's with me when I go to sleep, I take it along when I'm having holidays because it's always nice to talk to your friends or your relatives'.[39] For many students, especially those that come from rural areas of Lithuania, mobile phone is the primary means of being connected with their relatives. To them, simply knowing that you can get hold of your parent at any time when you need, increases their feeling of security and has made their settlement in an unknown city smoother and easier. On the other hand, for parents having the information on what their kid is doing, and being able to talk to them everyday has made the transition easier as well. Some would even argue that mobile phones are the most important device that helps to consistently sustain relationships. Psychologists claim that it is especially important for women. In the modern days most women work, so do their friends. The time for meeting up is limited and even if they have it, they can never fully discuss all that's on their minds. In a way, mobile phone fills that gap by allowing you to be connected to the people any time – while having a break, having lunch, driving, etc.[40]

Mobile phones are, therefore, a tool connecting a group of people, making the communication within groups more efficient and easier. Among friends, family members, work partners, fellow mates, the cellular can be used to get information transferred more quickly and more efficiently, which help to improve the relations and social connection.

Koreans put high value on social connection with other people for networking and success in the society. Therefore they spend lots of money and time to build up their social connection with others (Kim S., 2005). Mobile phone is a necessity for them to build up such relationship with friends, relatives, colleagues and business partners.

Within families, mobile phones have proved especially beneficial for aged family members – both to contact their children in times of need and to maintain relationships with grandchildren due to easy availability and ease of communication. According to a research conducted in the UK, about 25% of 11-17 year-olds felt their mobile phone resulted in them keeping in more frequent contact with their grandparents. 45% of grandmothers were seen as hopeful that mobile phones could help strengthen communication between grandchildren and grandparents[41]. Said 84-year-old Marcel, who lives alone in Portslade in south England: "One night I tripped over my cat and fractured my ankle. I was unable to get up from the floor. Luckily I had my mobile in my hand as a result of which I was able to call my son."

Among plenty of applications of mobile, SMS is the most widely used mobile service to keep connected in China and elsewhere. According to MII, in China, the total amount of SMS sent was over 220 billion in 2004, and in the first five months of 2005, this number has already reached 115 billion (Zhang 2006). A survey to China's citizens in urban areas aged 18-60 in 2003, 40% had received or sent text messages, and 17.9% had used other short message services (Kuang 2003). This reflects how SMS in China plays a significant role in facilitating personal communications and connectedness.

Together with other applications, SMS is also a way for the young generation to keep their private matters to themselves. Especially in relatively traditional societies, such as India, mobile messaging has become the latest fad for teenagers in a society where "dating still does not get widespread parental approval"[42].

Even in urban circles, mobile phones have brought in a new wave of communication practices. College student Hazel D'Souza is quoted by Rediff[43] as saying: "I have friends in other departments. We don't know when we might be free. So we give each other missed calls. We have codes, like one ring means 'I'll meet you', two rings mean 'I can't make it'." Such communication avoids the expenses of a normal call. This is one of those many examples where mobile phones had increased and made connectivity more convenient.

Convenience

Convenience and connection provided by the mobile phones go hand-in-hand. Most of examples provided in the previous section also apply here. In this section, we will concentrate on those examples from the

countries studied, which directly promote convenience for our daily lives and for micro managing the time for planning daily activities.

The use of mobile phones has brought convenience in daily life in many ways. To mention an example, which is very common in many countries, consider the partnership of mobile network operators with local transport agencies where the subscribers are provided with a service to pay bus or train fares using their mobile phones. To give a more substantial example, mobile banking also falls in this category as people do not have to waste time on visiting a bank and wait in a queue.

In Korea, one of the main user groups of mobile phone in this way is the university students. A good example is m-library system provided in several universities, like Hanyang, Seogang, Seoul National and Sookmyeong. Students can check catalogue of the library and reserve books by using their mobile phones at home.

Another frequently cited contribution of mobile phones involves better time management and micro-planning of our daily activities both for personal and business uses. Sales executive Arti Manglik stresses on the absolute necessity of mobile phones to co-ordinate with clients when on the move. "It has easened-out life," says Bilal Zaidi, "Still wonder how I managed to organize a high school get-together when nobody in the group had a cell phone". Abraham George, a software professional in Hyderabad, consents to the fact that mobile phones have made both social and general family activities - such as meeting up with friends, co-ordination with wife for grocery shopping – more efficient.

In addition, there is a growing replacement of mobile services with those convenience apparatuses such as the alarm clock, radio, organizer, news, camera, calculator, and games, all of which people are happy to utilize [44]. Collecting these in one device is making more convenient to all users.

Charisma

In a general sense, many youngsters agree that having a mobile phone is not only an easy access to friends and families, games and information, but is also a way of defining yourself and relaxing. In a number of interviews[45] it is claimed that mobile phones is a way to express one's personality and independence as well as a good way to relax wherever you are. Some people also say that having a mobile phone allows you to be creative and relate to your identity. Being able to choose the tune, the screen picture, to take pictures, and upload them

on a computer is not only a way of entertainment, but is also a big part of who you are.

It is no surprise, then, in Lithuania, mobile phones are an expression of one's personality and an important feature of life-style, especially for those who have more income. For some, the look of a mobile phone is more important than the features that come in it. One of the most successful businessman, Tautvydas Barstys, acknowledges that appearance of a phone should be taken into serious consideration. 'It is as important an accessory as a dress, a watch, a car, or shoes', he says.[46] It is argued that as a mobile phone is increasingly being seen as an accessory, it is also starting to shape the perception of other accessories. The director of a Museum on Time Measuring, R. Martinkus, notices that while earlier watches served their direct function of showing time, now they are worn more out of habit or as an essential style feature. He himself admits that he owns five watches but does not use either of them because he can see time on his mobile device.[47] Therefore having a mobile device is not the matter of being accessible or being able to call anymore. It is your key to information, your access to leisure, and it is you!

Discussing mobile phones and newest updates and releases has also become a somewhat 'cool' topic among the high school students. For them, talking about the gadget provides another way of making friends. Indeed, some personal stories suggest that pupils' friends think of them as more cool simply because they are good with mobile phones and they showed their mastery in using the gadget. It is also the way of communicating one's interests to friends. Through certain activities and competitions new friendships are created as well the feeling of solidarity among that community is maintained. This effect of mobile phones is well noticeable in the initiatives to make pupils compete on the basis of answering questions and sending text messages. For example, Bite introduced a game where pupils using mobile Internet have to look for 'guitars' and in this way earn scores for their school. The school that earns the most points will have the privilege of hosting famous Lithuanian pop groups in their school.[48] Clearly, the ardour and the sense of competition that comes with it provide the kind of shared feeling of solidarity that maintains friendships and fosters team spirit among youth.

Mobile culture has played a big role in defining the freedom and liberation of both the young and old in India, says Zaidi: "I can stay out late, as often as I want to and my parents don't worry too much since they can always call me on my phone. My dad didn't have that luxury. He had to be home by 10.00 pm else his parents would freak out."

Mobile Phones also helped carve a niche of independence to young girls, for example in India, several of whom work late into the night. "I'm sure many of the women who work in call centres are allowed to only because their families can rest assured since they can be contacted." Says Manglik: "Five years ago, my mother was making a big fuss about sending me to a hostel to study since it would hard to speak regularly on the college line. Now thanks to my mobile, my mum rests assured, and I've gained the independence to come to Chennai for work."

In a relatively more developed society 'Mobile revolution' has brought about a re-definition of the lines of privacy and social status. In the UK society, these lines are seen more clearly among adolescents and students. According to the Mobile Youth Survey[49], although a majority of teenagers were not seen to look down on a mate who did not own a mobile, a prominent 26% of 11-17 year-olds said they would feel "unwanted if a whole day went by when my mobile phone did not ring".

The figure of complete 'addiction' to mobiles was seen at 42% among 15-17 year old girls as there was a notable amount of *private identity* attached with the use of cell phones. Akin to modern day diaries, two-thirds of 15-17 year-olds said they would not let their parents look through their text messages. "Because it's private and has nothing to do with them. I like to have my world as my world – bit of privacy," the report quoted a a couple of them as saying.

In addition, women on their own in cafes and bars and on trains are seen to use their mobiles as 'barrier signals'-in the same way that they used to hold up a newspaper or read a magazine to indicate to predatory males or other intruders that they were unavailable, says Mobile Life Report.[50]

The mobile phones become a valuable part of the youth as a liberating device. Hope, who travels frequently, says she owes very highly to mobile phones for giving her the much-required mobility in her career: "I could not do all my hip-hopping across the globe without my mobile phone. Thanks to my mobile - I even swear upon it - I know I am close to my family and friends that matter wherever in the world I am."

Companionship

As mobile phones are becoming an essential accessories that we carry everywhere and as mobile applications aiming the amuse the users are increasing, the mobile phones are becoming a friend keeping us a company when we are bored, nervous or simply need to pass time. Mobile Entertainment in its various forms are providing many people with

opportunity to pass enjoyable time by themselves or with a group. Especially due to fact that users of mobile phones are being young people, enjoying leisure time using mobile phones by playing games, listening to music, watching movies and taking photos have become an essential part of their life.

In China, downloading mono or polyphonic ringing tones, music as ring tone have always been appealing young people and even adults. More recently, various ring back tones won the popularity among mobile users. The birth of these services have changed the traditional dull ring tones and ring back tones, which allows people to set customized tones, for instance, a favourite song or customized personal greeting, depending on users' personality and mood. Combining with the phone's set of functions of downloading/storing MP3 music and recording, mobile phones show the trend of its more customized usage in this field.

With the further development of digital and wireless technologies, mobile phones are becoming audio and video terminals, which is also known as the Fifth Medium. Nowadays, Chinese people not only can watch TV at home or online on computers, but also can do so on their mobile phones. Lots of mobile TV service trials based on the collaboration between telecom companies and radio, film and television (RFT) companies indicate the future use of cellular as a personal media centre.

China Unicom launched 'Video Info New Line', the mobile stream media service, in 2004, cooperating with 12 television channels including CCTV, Phoenix TV and BBC, etc . Later, Tianjin Unicom issued palm TV (GOGOTV) based on CDMA. Users can watch 20 fluent and clear TV program streams from local and nation-wide TV stations. In 2005, Shanghai Mobile, cooperating with Shanghai Media Group, launched the first 'Mobile Short Play', 3 minutes per play, 10 plays in total. 'Kong fu', a first-launched movie, also showed up on mobile last year (Wei 2006). Without any place and time limitations, users can enjoy videos and movies anywhere and anytime they want.

Playing games using mobile phones has taken place all around the world. In China, although the mobile phone game market is at its beginning stage, it has been being considered as an important application field to grow. At present, we can 'sense' a battle between China Mobile's JAVA and China Unicom's BREW, each distinguishing game service platforms, application software and vast ranges of services on the Internet, which use mobile phone terminals as portals. For instance, two similar games were launched by each of these operators. 'Treasure Case' launched by China Mobile and 'Wizardly Treasured Book' issued by China Unicom. Currently, SMS based games, WAP games and JAVA/BREW games are

making up the whole mobile game market. The features of easy-to-use and availability anywhere anytime attracts the attention of millions young people especially those who are familiar with PC based online games. A study indicates that mobile phone games can amuse people in certain tedious occasions, such as when waiting for the bus, on the train, waiting for people "when on a date" and during travelling, etc[51]. The freedom of time and place, and the pleasurable company mobile phones bring to people is somehow changing the traditional idea of entertainment.

Another example that mobile phones are enabling people to enjoy a wider variety of leisure activities regardless of culture and country comes from Lithuania. Su-do-ku, the crossword game that used to be played on the paper can now be sent to a mobile phone.[52] So if you are bored travelling on a train, waiting for a doctor's appointment or for someone who is late, you can have a go on Sudoku on your mobile phone.

Using another application, Lithuanians can compose basketball teams and fully participate in the kinds of processes that had never been imagined before. For example, one of the commercial banks in Lithuania recently organised a game in which basketball fans could vote on their mobile phone on what players will compose a Baltic 'star' basketball team to compete with a foreign 'star' team in a championship. This does not only present fans with an opportunity to witness an all-star game but also provide them with a chance to include their favourite players in the teams.[53] In this way mobile phones open the door for opportunities for everyone to get involved both on a personal (i.e. voting for your favourite player) as well as social (it takes many people's votes to compose a team) level in their favourite activities.

Besides the regular contact and communication, in the UK mobile phones are also used increasingly for fun such as socializing and dating. "Just put yourself in the shoes of a teenage boy who wishes to ask a girl out on a date," says Pat Spungin [54]. It's easy to see the appeal of a text message that offers discretion, the chance to compose responses thoughtfully, and which can be ignored rather than leading inescapably to either acceptance or rejection."

Care

Care using mobile phones is becoming an important contribution especially for families. In Brazil, mainly in the middle and upper class, the use of mobile phones for teenagers and parents are moving toward those services which are related to the safety of the family. Here, the main objective is to give support for any member of the family in the

case of safety problems such as robberies and kidnappings. Middle class parents provide mobile phones for their children, in order to locate them wherever they are. When a person needs to travel from home to work it is important to have their mobile phones with them. It has been common to use mobile phones to ask for help in terms of road safety (accidents and road failures). It is also used to locate members of the family in different places, mainly when the parents work in different cities.

Mobile phones come very much in handy since India's conventional telecom infrastructure has loads of room for improvement. Rediff [55] quotes Prof Manisha Sen, head of the Department of Applied Psychology at the Mumbai University as saying: "Unfortunately the land-line phones on campus are out of order quite often. If there were an emergency, it would be difficult for parents to contact their children. In such a situation, a mobile is very useful, almost necessary." Adds college student Charmaine Caldeira: "If there is an emergency and I am in college, it is easy to contact me."

Similar to China, In India too "anxious parents provide children with cells, so they can keep tabs on them. They can monitor their activities and remind them not to stay out too late". Shaila Pereira, who works in a Mumbai bank, says, "I can call my son anytime and ask where he is. I've found that now he comes home early, because if he is later than usual, he knows I will call'"[56].

Similar care related experiences point to instances when mobile phones also works to the benefit of old people and women. "Parents can let their children go anywhere since they can trace them," says Pankaj Molekhi, a business professional in New Delhi. "I can also recollect the incident when I met a road accident about six months back. It was around 2.00 am and although my collar bone was broken, I managed to punch in my brother's number on my mobile. Next, I used the mobile of the co-occupant in the car who was unconscious, to dial his family. That was how we were able to get help." Bilal Zaidi, a television journalist based in New Delhi, provides a similar case where mobile phones have been useful in emergencies: "One of my friends had met with an accident and she fell unconscious. Since I was the last person to have had a conversation with her over the phone, the person who saw her on the road called me up. That is how I could call and inform her family." Mobile phones have undoubtedly worked to the benefit of women too, since office hours in India often run into late evening/night hours. They are so useful to officials - especially women - working night shifts for months, as India harbours a notorious reputation in being unsafe for women. Another situation where mobile phones are being used for keeping safe is explained by Arti Manglik, a sales executive with a leading publishing

house in the southern city of Chennai: "Once I was returning late from work and saw a person following me. He left as soon as I took out my mobile and pretended to be dialling the police."

In the UK, increased accessibility owing to 'mobile revolution' has boosted the popularity of mobiles especially among parents with school-going children. According to the Mobile Youth Life Report, most parents "feel that mobile phones can help keep children safe when they are away from home. If they lose their money, help is only a phone call away". A mobile phone serves as a safety mechanism for adults when they know they are in a crisis, like a missed bus, stolen property or getting lost, says Pat Spungin, founder of the parenting website, raisingkids.co.uk. "When my children were growing up they didn't have mobile phones. Pity, because I would have been able to track down my wayward teenage daughter rather than frantically call everyone she knew. I would have been able to locate my son when he was stuck in a lift all night. And when I couldn't get to the school gate on time, I could have phoned another mum to pick up the children, thus avoiding the wrath of their teacher. There's no doubt about it, mobile phones make it easier to keep track of the kids and keeping track of the kids has become much more of an issue than it used to be." According to her, "the thing that makes parents feel they are still 'there' if needed and gives them the confidence that they are still in touch with their children, is the mobile phone"[57].

Mobile phones also find extensive usage for purposes of instant texting and keeping contact with aged family members who may find it hard to use wireless telephony. According to Mobile Life Report, 80% adolescents (89% girls and 72% boys) feel safer with a mobile phone when out and about, shopping, socialising or traveling to and from their school or college. As much as 54% of young women say they sometimes use their mobile phone "to deter people from approaching". Esther Hope, 32, doing her doctorate in the UK says: "Mobiles are a lifesaver. I keep travelling to China frequently for work. My mom in Portsmouth can rest assured only because she can reach me whenever she wants using her mobile." K. Adams, 25, a Masters student at the University of Sussex, explains: "Mobiles are an absolute necessity, especially when venturing out on weekends. With so many drunk people around, I would never have the guts to walk about without a mobile."

Similar observations are made in Lithuania, where mobile phones can contribute to the relations in a family by helping them feel secure. It becomes the means of control, and also the source of freedom. A famous journalist, O. Lapinas writes, 'Why parents buy mobile phones for their children? They do it because that enables them to find out what their kid is doing and where she is at any time. In this way they can be assured

that she is safe and do not need to fantasise about the possible adversities that might have come their children's way.'[58] Thus, getting permission to attend a party or stay over at a friend's place has become less of a mission to youngsters because they are accessible via mobile phones and this gives their parents the belief that they can always find out what their kid is up to. And if anything, there is always an easy way to ask for help in a case of emergency.

Apart from supporting safety within families, the mobile phones can help for caring larger groups, especially in the times of disasters or emergencies. In 2003 when SARS was widespread in China, the government used SMS to transfer updated information related to the infection situation in each city and relevant news, enabling the public informed quickly. The use of cell phones and SMS was also considered most important ever, as it enabled people to get contact with friends, family, colleagues during that special period when making people meet face-to-face was not quite possible.

Another usage of SMS is to serve in natural disasters. Just before the arrival of No. 5 typhoon Haitang in 2005, Fujian branch of China Mobile cooperating with the local government and working closely with local observatory tracked the typhoon status, and then sent the public the anticipated alert messages. According to the statistic, one million relevant messages have been sent out during that time (Zhang 2006). The timely and accurate typhoon information passed to users improved preparation of the government and the public for the disaster. Additionally, lots of other areas in China, such as Shanghai, Beijing and Liao Ning Province, have also established the disaster alert mechanism of this kind.

Culture

Many people would agree that a mobile phone is not only a gadget for connected and convenient life, but also a medium greatly influence life and generating new culture and behaviour. Especially for teenagers, mobile phone plays a role as a tool for producing and disseminating their peer culture, and expressing their identity. Many teenagers think mobile phones as necessity and they have their own way to communicate like unique grammar and expression in text messages[59].

An interesting example from China is related to new ways of sending greetings. During spring Festival, also known as the Chinese New Year - the most important festival of thousands-years of history in China, simply sending mobile short messages to distant family members and friends has been considered as a fashionable New Year greeting. During

the 7-day holiday of the Spring Festival 2005, 11 billion text messages had been sent across the whole country, of which 8.4 billion belonged to CM while 2.6 billion were sent by CU users, increasing by 7.7% and 30% respectively comparing with the last year. And with the popularity of MMS cell phones, over this holiday, about 38 million multimedia messages combining images, voices and text had been sent by CM subscribers[60]. Messaging services interacting with TV and radio programs, newspapers and even the online communities have been rapidly developing as new trend in China. Currently, they are mostly used in the contests, polls and quiz programs, ranging from TV, radio to news papers. People can easily find a number to join those programs they want, which improves the communication within a social group concerned with a common topic. SMS interaction of this kind contributes to the ways where the public can participate the discussions and shows on the TV or radio in an easier way. Although some weak problems currently exist in policies regulating SMS-participation programs in China, services combining mobile SMS and traditional media are predicated to be a trend of new media services of the future.

Similarly, mobile culture has embraced the popular ways of expressing one's feelings and making jokes. There is a range of companies in Lithuania that offer ways to 'tell people what you feel'; to find out 'whether your horoscope matches that of another person'; to get predictions for the future and the similar sorts of things. They also offer the ways to brighten your friend's day by making a joke – all with the help of mobile communication.

Mobile phones are also acknowledged by a majority of teenagers that it is creating a new way of interactions with their parents. More than half of 11-17 year-olds say their parents give them more freedom because they have a mobile phone (59%) and are allowed to stay out later as a result (53%), according to the Mobile Youth Life Report. Pat Spungin [61] reports that mobile phones created a new ways of dating using SMS, which can be a less intrusive and subtle way of communication. Spungin continues to say: "As a mother of two daughters and a son who have now grown up, it is all too apparent just how grateful young people must be for the advent of mobile phones and text messaging.. Let's look for a moment at the landline route to romance. You dial the number, perhaps after much deliberation, and even a little rehearsing of your words. Ready to utter them, you find yourself speaking not to the girl you hope to speak to, but instead to somebody far more intimidating – her mother. Now you've got to ask for the daughter, who will be summoned to the phone. And if her mother is anything like me, the daughter may well face some teasing glances along the way."

CONTRIBUTIONS TO SOCEITY IN GENERAL

The mobile phone use individually and collectively has wider implications and can result in various contributions to the society at large. Based on our observations from the countries examined, the effect of these contributions can be classified into five categories. Mobile phones help to create *an informative, connected, culturally innovative, participative, and converging society.* In the sections that follow, these concepts and supporting evidences will be presented.

Informative Society

Fast and useful information dissemination in the society is a widely observed contribution of mobile phones. Mobile phone, with its mobility and accessibility, not only plays an important role in individual's life and close relations, but also shows an increasing significance in social network building, knowledge sharing, and creating a youth culture. It emphasizes that people as a node in the network of a society is connected to each other and can access to the variety of information relevant to them. It also improves the scale of public's communication and benefits a larger group of people in the society.

Mobile phones have enabled users to access required information easily. In any society, information is considered an important social resource. Instant access to emails, communicating documents back-and-forth, pictures and music, watching broadcasts and surfing the Internet prove themselves as the primary social resources through which mobile phones are producing benefits for all.

After subscribing to news, weather forecast and stock information, etc., mobile users can regularly access the information subscribed from the cell phones. Instead of receiving information passively on traditional media, WAP enabled cellular phones allow subscribers to get customized and relevant information instantly. In China, most of the WAP users have enjoyed the customized information through their mobile since the 2.5G's arrival (Wang 2006). In February of this year, 'Two Conferences' Mobile News Net, the first mobile news website based on the terminal of mobile phones in China, launched by People Daily. It successfully reported this important political news event using the wireless Internet. There were over 3 million visitors, and 15 million page accesses. The amount of registered users on the BBS was about 100, 000 who sent out 150,000 notes in total (Wei, 2006). In this application, mobile phones, to some extent, have shown more efficiency in transmitting information than traditional media do.

In traditional holidays, twice a year, Koreans start a huge movement within whole nation to travel to hometowns to see the extended family and the relatives. In this situation, as almost whole people of nation move at the same time, traffic and weather information are crucial for travelling. Mobile phones play a significant role in helping to obtain that information.

SMSs have also reduced the expenditure and made convenient the process of sending greetings on festivals and other occasions. Despite the rise in the number of festivals and occasions - with increasing globalisation bringing in concepts such as Mother's Day, Father's Day, Friendship Day, Valentine's Day that were alien concepts till a few years back – the greeting cards industry has been recording sliding income[62].

Due to its succinctness but definiteness and efficiency, SMS can diffuse information much quicker than traditional media, such as publishing and broadcasting. Although the difficulty of control on its content could be abused, its positive use under well controlled by the central government in some urgent social events shows a potentially powerful function of governance in China. In a series of anti-Japan activities in April 2005, Beijing used SMS to transfer the voice of the government, debunking a rumour that there would be an anti-Japan parade (Zhang 2006). The

Police Station sent authorized and accurate messages to 9 million Beijing mobile users using special numbers 1860 and 10010, the CM and CU platforms, at the same time of using radio, TV, newspapers and the Internet to stop the rumour which was widespread on the Internet and among SMS users. This was a successful case that the government used SMS to protect the security of the country and social stabilization.

Mobile phones also played roles of great importance in the instance of tragedies of India like the 2004 Mumbai deluge and 2005 tsunami through enhanced direct access to politicians and institutions[63]. They are also playing a part in social causes such as spreading awareness on AIDS, in which India reports the second highest numbers after South Africa. Four mobile AIDS games have been launched by e-learning company ZMQ software systems in collaboration with Delhi State AIDS Control Society[64]. Help lines are also seen to operate through mobile phones proving their cost advantage due to low-cost schemes in India[65]

Connected Society

Koreans consider relationships with others as an important aspects of their social connection. Thus they make a lot of efforts to build up and keep the relationships with family, relatives and friends and business partners as much as they can. In this social context, mobile phones, which make a short notice meeting possible, are necessity for the people, who want to connect to the others and do not want to be excluded.

A research in the UK presents that mobile phone researcher Kate Fox calls mobile phones "the new garden fence"[66]. "What I mean by this is that the space-age technology of mobile phones has allowed us to return to the more natural and humane communication patterns of pre-industrial society, when we lived in small, stable communities and enjoyed frequent conversation with a tightly integrated social network of family, neighbours and friends," as opposed to landline telephone communication that "involved a certain amount of deliberate effort and planning".

In UK's industrial society, for youngsters, mobile phones are seen as inevitable for keeping in touch with friends and social life at large. 78% of 11-17 year-olds say that having a mobile phone gives them a better social life, because they can more easily maintain contact with their friends. More widely, 70% say their mobile phone has made their life better. According to this survey 76% of under 25s, 66% of 25-29s and 25% of the over 60"are likely to feel better connected to your social

network," through mobiles. Also seen to play a role in matters of love and attraction, mobile phones are increasingly used in case of awkward situations such as asking out on dates and breaking up relationships. "A quarter of 11-17 year olds have received a text inviting them on a date. 16-17 year olds are almost twice as likely to have received a text inviting them on a date (49%) or sent/received a text to end a relationship (16%) than adults aged 25"[67].

The research continues to add that connecting via mobile technology also aids in the development of deeper relationships. "This may sound surprising to people who assume that because young people are having lots of trivial dialogues, often with text messages, this is somehow at the expense of their deeper relationships. But.. small things, including communications and even text messages, add up. They don't themselves create deep relationships, but they help to maintain them" [68].

Global Knowledge[69] reports an increasing reliance on mobile phones by women to achieve a balance between careers and homes. In aiding the females, India expects an influx of baby cell phones with harmless radiation, sending an automatic SMS and e-mail in the event of their child crossing the defined boundaries[70]. Mobiles can also be used to avail exam transcripts, hence making the process efficient for children[71]. These two examples clearly indicates how mobile phones can help keeping connected to your social network as well as carrying out other duties both for grown-ups and the children.

Culturally Innovative Society

Although designed as a communication device with many functionalities, the mobile phone can be very instrumental indirectly influencing certain other activities in our lives and creating new set of trends. This influence may change from designing new short-cuts in the language, to improving language skills; from adopting new ways of socialisation via mobile phone games to even digitising certain aspects of rituals and religious practices.

While development of mobile culture has spurred a whole debate on 'mobile manners' (as to when to switch off a mobile and when to be allowed to speak on it), survey done by the Mobile Life Report reveals a host of youth jargon for mobile texting with words like 'c ya', b4', 'hows u' etc. 36% respondents to the survey said they would use their mobile cameras if they were to spot a celebrity or some newsworthy event. "Additionally, half of people said they would use the camera or video

facility on their phone to record evidence of a crime, 50%, or to actually record a crime, 47%, confirmation that big brother is watching".[72]

The spread of mobile culture has also caused a significant minority of today's young people to be socially conscious and politically correct. "For example, they would not think less of someone who did not own or could not afford a mobile phone; most think it unreasonable to text during a school lesson; if they did not have a mobile phone bill to pay, few would spend the extra cash on cigarettes or alcohol but would use it on, dare I say it – savings".[73]

Brazil has seen an increase in mp3 applications in parallel to the downloading of ring-tones. Brazil stands 3rd among the top nations who use their mobile phones as a source of music entertainment. New uses of mobile phones are also being invented. The phone, for example, is also used as a clock where many users have mentioned that they don't need watches anymore. With the introduction of 3G technology, there is an increasing emphasis on "video conferencing with 53 percent of people identifying this as a key feature, compared to an average of just 25 percent across all countries surveyed"[74].

In China too, text messages bundled on cell phones with their short and speediness have been enjoying the most popularity. More importantly, the succinctness of the language used together with its platform - cell phones has created a new literature type, Mobile Phone Novels. As a new novel type, mobile phone novels are becoming more popular among young people in China. According to Jiefang Daily[75], the copyright of the first Chinese mobile novel called Outside Town, with 4,200 Chinese words, was sold at the price of 180,000 RMB in 2004; and this novel gained a successful reading circulation on mobile phones.

A writer writes a long story separated into portions under the word limitation of one text message, usually 70 Chinese characters. The content of each portion requires relative independence, and can attract readers to wait for the next one. Besides, the language used for mobile novels normally requires to be wittier and more attractive that can match the relaxation and efficiency demand of modern people. The birth of mobile novels also seems to change people's reading habit into a relatively discontinuous manner. Due to anywhere availability, the fun, and the readability in a short time, mobile phones are believed to be revolutionary literature carriers - equivalent with the invention of papers, emergence of computers and the Internet, each of which led to a literature change eventually. Since the appearance of the first mobile phone novel, more and more people are getting involved in mobile phone novel production. Although some people would say the entertainment

trait of mobile novels exceeds its art value, some specialists are still studying on how this new literature type can inherit the spirit of Chinese literature and how it can carry forward the aesthetic sense and beatuies of the Chinese language[76].

Mobile phones can also serve as indirect mechanisms promoting learning new skills and interests. Besides practicalities that texting save time and money, in India, there has been a notable improvements in the use of English (although spellings are most often incorrect)[77]. According to this research, some people interviewed have also noted an increasing interest in technology due to existence and widespread use of mobile phones.

Mobile Internet game applications are also considered as a new mode of group networking in the society through connecting more than one player together in the same game to accelerate their communication. The players can be friends but could also be unknown strangers.

However modern the technologies of mobile phones be, they can relate to many aspects of our cultural and social life including religious practices and rituals. In India, for xample, the mobile phone can suit well to the popular prayer-and-ritual-based culture. Global Knowledge[78] talks about SMS prayers and requests to light candles in church, while iPiPi[79] reports a project on TV channel Sadhana where a panel of 40 gurus (holy teachers) receive up to 20,000 messages a day.

Participative Society

Mobile communication has shown its power for collective activity as well as on individual life. Mobile phones can prevent isolating members of the society from social connection and empower ordinary citizens via convenience for connecting to others and availability of information. The mobile pones can make individuals active in participating to certain programs on TV by simply voting. At other times, mobile phones can be a political instrument promoting democratic participation and organization of political activities.

In Korea, mobile phone has often been used as a medium for informing and rallying people for political issues such as protesting the presidential motion movement of 2004. During the presidential election of 2002 and general election of 2004, mobile communication played such a crucial role influencing political campaigning through text messages (Kim, 2004; Choi, 2006).

Mobile communication has been a very useful medium for contacting each other promptly and sending information to many people at the

same time. Therefore, people have used mobile phones to organize non-political events like World Cup 2002 and 2006. Text messages especially have been used for this purpose as it is relatively cheap, prompt, instant and easy to send information to a mass of people at the same time.

In India too, "Mobile phones particularly are increasingly being used as the mode of expression of political, ideological and social rights. Users experienced for the first time the broadcast of a political campaign in 2005 by a political party over mobile phones on the eve of elections.[80]" Some people naturally accepted sending votes and messages to opinion polls through SMS.

The participation of individuals is also extended to various entertainment events, too. In India, the popularity of cell phones is also manifested with the example of famous TV series "Indian Idol", which received a "more than 55 million votes via SMS" making a total of Rs 16.5 (Rupees) despite the cost of each message being a high Rs 3[81].

Converging Society

Mobile Phones are also contributing to the creation of more equal society. Via communications and other economical and social benefits, some societies witnessing a convergence in terms of bridging digital divide, especially for geographically dispersed countries such as Brazil and India, and in terms of sharing information and other benefits. Empowering the individuals via confirming their identities, improving participation via better information dissemination and increasing social connections between different segments of the society are also those contributions of mobile phones that create equalities of opportunities and distribution of wealth.

"In India, mobile phones are now for ordinary people and fixed-line phones are for the rich. We used to think it was the other way round."[82] This can be mainly attributed to the fact that some parts of India are yet to come under fixed line telecom coverage. Since fixed-lines require extensive physical infrastructure that could often take years due to red tape, mobile phones have turned out to become the fastest and most convenient ways of maintaining communication networks.

Already used widespread in the urban locales, mobile phones are seeing surprisingly quick adoption in the non-educated, rural pockets of India too. This could be attributed to a surprising link with Indian mythology that talks about gods communicating with one another through telepathy. "People in the rural areas, who never had access to or the

understanding of traditional "telephony" are totally comfortable with the cell phone because they know something like that from mythology – telepathy"[83].

Mobile phones bridge the digital-divide by providing weather and railway data to smaller, poorly-connected towns and villages of India. "The demand for regionalized local content is increasing" [84] and being very useful in those parts of the country where implementations have taken place already.
Several companies such as Bharti, Spice Telecom and Reliance have now started a service called 'Voice SMS' to cater to the needs of the illiterate in India. Leading equipment manufacturer Nokia has launched 'Mera Nokia' with Hindi keyboard to cater to the non-English speaking belt in rural India ([85], [86]), seeing the general ease with which rural India has been adopting the technology. SMS have reduced the expenditure and made the process of sending greetings convenient and affordable on festivals and other occasions.

Similar experiences have been on served in Brazil. The usage of mobile phones over the past years has created positive impacts on the dynamics of Brazilian society. It has primarily increased efficiency in communications nation-wide and has bound geographical distances from parts of the country to others. With many divides in Brazilian geography, mobile phones have helped in bridging the gap. Mobile phones have been widely used in conducting day-to-day operations in the Amazon. The region is known for its deep tropical forests, inhabited by the few, however, implementing land-lines in the region is quite a complicated matter due to environmental concerns. It is widespread that much communication is done through mobile phones. As such, this practical form of mobile technology has aided many inhabitants of the region in implementing several operations, especially in regards to conservation and other "green" initiatives[87].

MOBILE WELFARE – THE ECONOMIC IMPACT

This section looks at the positive impacts of mobile technology on the economy and the governmental sphere. The total benefit of such contributions will be called "Mobile Welfare". Mobile welfare is having positive impact on several aspects of society, providing better infrastructure, improving working conditions, creating better business practices, m-politics and influencing policy making, etc. Therefore, emerging from contributions to individual lives, primary relations and to the society in general, mobile phones and their use influence the whole economy and welfare of a country. According to the observations from countries examined, *four areas with major direct influences are identified: infrastructure development, better business practices, improvements in the public sector (mobile government) and contributions to collective welfare of the individuals via social responsibility.*

Infrastructure Development

Mobile phones have played a decisive role in improving India's communication infrastructure by increasing connectivity to distant pockets that were otherwise difficult to access. They have worked towards the empowerment of the youth and women of the country and

have made existing business practices efficient while creating new employment opportunities.

The total number of connections over the last 4 years grew at an average of more than 20 percent. [88] According to a survey by leading telecommunications magazine, Voice and Data, 45 million people owned cell phones in India compared with 44 million people who had land lines, making mobile phones the devices for India's common man and fixed phone lines for the rich. The Telecom Regulatory Authority of India (TRAI) predicts that the number of phone connections would have increased to 200 million – 150 million of which would be wireless - by 2007. This makes India one of the fastest growing telecommunications infrastructure in the world. According to TRAI, at the current levels, "cellular networks cover about 1,700 towns (out of 5,200), covering 200 million (just about 20%) population. By 2006, the cellular networks are expected to cover 350,000 (out of 607,000) villages, covering 450 million people". [89]

The prominence of mobile technology in India also lead to the formation of influential telecom-related bodies such as:

- In 1995, the Cellular Operators Association of India (COAI) (a non-profit organisation for the advancement of cellular communication in India)
- In 1997, the Telecom Regulatory Auhtority of India, a government department to "create and nurture conditions for the growth of telecommunications.. at a pace which will enable India to play a leading role in the emerging global information society".

Another milestone in India's mobile history includes the announcement of a National Telecom Policy for the entire country in 1999. In 1998, annual foreign investment in the sector stood at 17,756 million.

Stemming from such investments, on the business front, some of the major industries are seeing an significant growth owing to mobile technology, namely the music and games sectors. A Lehman Brothers' report brings to light the existence of a multi-million market composed of media, and mobile aggregators. The existence of a score number of mobile phone users who are ready to pay for entertainment on travel "is pushing scores of media companies, telecom operators and over half a dozen aggregators to offer a host of data services – from contests and ring-tones to weather forecasts, games, banking and astrology services" .[90] In addition, film and games related content also witnessed incredible earnings. "Of Reliance's 18 million subscribers, - more than 10 million of which use data regularly- about 32 per cent of one mobile portal's

(undisclosed) revenues came from ring-tones and 20 percent from films. That means roughly half the data revenues of one of the largest operators in India come from film-related content. Games and cricket form a respectable 8-9 per cent each".[91]

Similarly in Korea, mobile communication industry has brought about enormous profits into various relevant industries of hardware, contents and other consumer products. Especially mobile phone manufacturing has contributed to Korean economy significantly. For example, exporting sales figure of mobile phones was 2.2 billion dollars in August 2006. Mobile phone exports took up 22.3 percent of total IT exports of 2006.[92]

Mobile phones have been converged with diverse technologies like camera, MP3 player, DMB (Digital Multimedia Broadcasting), video recorder, voice recorder, calculator, diary, purse and so on. In addition, network companies have started providing even contents like music and game. Which is being expected to have a big impact on contents and software industries. Above all, recently initiated DMB service is expected to be a huge step to visualise the picture of Ubiquitous society in reality. It is the convergence of broadcasting and mobile services. DMB service was launched in Korea in July 2006, thus people could enjoy watching 2006 World Cup in the running subway. The massive impact on related industries and a large amount of additional value are expected in the next decade.

So far for China, no 3G licenses show a desire to promote a home-grown 3G technology TD-SCDMA which is one of the three internationally approved 3G mobile technological standards (Other two are European WCDMA and American CDMA-2000 EVDO). 3G can contribute China to compete with America and Europe in the mobile technology area. It can help to win a share in the huge global mobile market. However, the Chinese government is cautious on 3G launching. The 3G launching, when it happens, is predicted to reshape the landscape of the China's mobile operator market (Yu, 2006). What 3G users can do after its launch involves more diverse uses such as multimedia terminals and a personal entertainment centre. Sending multimedia message and emails, checking stock market information, receiving location-based information, and playing mobile network games are all expected to influence the mobile market.

Better Business Practices

Mobile technologies have provided meaningful changes to the way private sector conducts business. Efforts to make everyday life considerably easier and convenient with the support of mobile

technologies also promoted efficiency and creation of new ways to operate more smoothly for many businesses. This, at the same time, have contributed to creating a more open and healthy market economy.

Mobile phones have improved working relations since they have made communication and information transfer more flexible. Starting off with simple communication strategies to Wireless Application Protocol, businesses are finding it easier to process information back and forth between the office and their employees. If certain aspects of work are not clear, it is easier to locate a certain member through mobile phones and request a quick support. This brings in greater flexibility to the way the work is done. Smart mobile phones have created more flexibility on the manner of conducting business whereby an individual no longer needs to be stationary in order to fulfil his/her work. This flexibility does not only exists for the work itself. It has also been a factor in increasing levels of customer service. For example, in a field research carried out with bank managers from Sao Paulo city, in Brazil, they mentioned the importance of mobile phones when they need to make "visits" to corporate customers. In a city like Sao Paulo, it is normal to have busy traffic and the use of mobile phone helps managers warn the customer when they are late and to try to book a new appointment quickly. With greater organization within the office and extending to customer services, mobile phones have shown improvements in the business sector.

Such improvements not only extend to the corporate sector but also to rural areas. The fresh fruit and vegetable producers in the state of Parana, South of Brazil, have price quotes sent by mobile phones. Every day, they can receive information about the prices of fresh fruit and vegetables through SMS. This makes it easier for producers to compete at reasonable rates.

In the same state like Mato Grosso do Sul, one of main economic activities is rural tourism. Tourism companies offer vacation packages from the main Brazilian cities to Campo Grande. From Campo Grande tourists have to be transported to rural hotels in the countryside. All this process is easier with mobile phones because the companies can communicate with hotels in the middle of the forest and make arrangements quickly. Such initiatives have helped greatly to new business developments in rural areas.

Similarly in India, several professionals such as plumbers and electricians claim to have had a spurt in sales after the introduction of mobile phones in dealing with clients. Improvement has also been registered in the case of jobs that are unique to the Indian society, such as:[93]

- Vegetable vendors who go around the streets selling fresh, wholesale vegetables are quoted as being able to co-ordinate better with customers in selling right amount of vegetables each one needs for the day

- Milkmen who go from house to house delivering regular quota of milk say that they are able to provide more milk to the houses if they are called on their mobile phones in advance.

- Kabadiwallahs who collect scrap paper and cloth from residential areas for recycling purposes say they get calls on their mobile phones if any houeshold has sufficient scrap to sell.

- Mehendiwallahs, who are called for festivals and occasions for the practice of applying ornamental 'henna' designs on the palms of women say their customers are able to contact them better since they are always on the move and have to go from house to house while working.

In addition, in India, new employment opportunities have come about for the young and tech-savvy with the rise of phone repair shops all over the country.[94] These shops, which can strip, correct and re-build a mobile phone in minutes, also add to the 'value for money' factor that is vital for the adoption of any technology in the Indian market.[95]

Various industries open new ways to new business with great revenues in the mobile world. Owing to the Indians' love for films and film-related music, the ring-tone industry (which, according to industry estimates, is one of the most popular mobile applications) is seeing a growth rate of 20-25%. Some operators, such as Bharti Televentures, are providing ring-tones in 18 Indian languages. "For the Rs 500-crore Indian music industry plagued by piracy, the new applications have started contributing to the bottom-line. Though the contribution is small, the companies hope that in future, the mobile downloads would contribute a sizeable amount in the non-physical segment.[96] "Last December, a hotly anticipated Bollywood film, *Rok Sako To Rok Lo*, was screened in its entirety to movie buffs in Delhi, Bangalore, Hyderabad, Mumbai, and other parts of India through EDGE-enabled mobile phones with live video streaming facility. This is believed to be the first time that a feature film has been fully accessible via mobile phones".[97] "A hit film can generate Rs 1-1.2 crore (Rs 10-12 million) -- about 5 per cent or more of an album's sale – on mobile revenues,"[98] says Shridhar Subramaniam, managing director, Sony-BMG. The gaming market - though small now - is anticipated to become the number one revenue earner in India,

surpassing even the ring-tones in a few years time. Developments in the market are targeting mostly customers from 15-16 years according to variety of interests such as cricket and Bollywood. [99]

Similar developments can be observed in the leisure industry of the Brazil. While mobile conversations remains one of the most practical forms of communication, the usage of SMS has been increasing due to lower costs. The number of SMS users has been accounted for 23 million as of 2005[100]. On the other hand, the use and downloading ring-tones has been one of the most successful services in Brazil where in "2004, there were 9 millions of downloads by month, which accounted for a total revenue of around US$ 100 million."[101] Similarly to India where Bollywood sales have increased with the inception of movies on mobiles, many record labels such as Warner and Universal have seen their sales revenue increase since ring-tones "come as a new and safe format to sell music". Seeing the success of the ring-tone industry, other Brazilian entertainment industries are looking at doing the same. [102]

Mobile phone companies started to market various multimedia applications. As such, recently in Sao Paulo, Motomix media launched an event with the main objective to show different media languages and their interactions through mobile phones. One of the activities was to broadcast films where individuals were able to chose their favourite movies. The duration of the films however, were short in comparison to traditional media since it was fundamental to have fewer movements because there was no real concern for image quality (Ney, 2006). Other marketing strategies have been related to the creation of mobile societies such as !blah; "the community, known as "blah!," originated in Rio de Janeiro, Brazil in June, 2000. It grants members access to four different categories: personalization, leisure, channels and connection."[103] As such, this mobile community offers "ring-tones, icons and wallpaper…music theatre and local events… [to] anonymous chat, love matchmakers and other interesting methods such as tarot."[104] With such methods, the company can truly reach out to subscribers and furthermore, direct customers to proper services while creating forums for socialization in common interests.

In the banking sector, monetary transactions have been made using a secure WAP based mobile technology. With the increased use of mBusinesses, Banco Santos, the largest private bank in Brazil, has mandated to make their transactions safe and secure for mobile users[105]. Banco do Brazil, another prominent Brazilian bank has implemented initiatives to widen mobile phone credit services, allowing customers greater services through telephone banking; "the bank [has]

introduce[d] such services to many of its 22 million clients. It expects at least 3 million of its customers to sign up for the service."[106]

Mobile technologies add to the success of many businesses, especially those working in logistics – a contribution to better business performance in Lithuania. Thanks to widespread use of mobile technologies and their recent and robust advances, companies can now work more efficiently using the mobile internet and sharing information in the fastest possible way, and having workers accessible at any time. Moreover, the 'locator' service has freshly been introduced in Lithuania allowing companies to detect the location of a mobile phone. This is of particular interests to logistics businesses since 'locator' enables them to track the movement of vehicles and acquire detailed information on where the employees are with a 0.5 – 1 km bias. Although currently it's only used by 5,000 subscribers, it is likely to expand drastically in the near future.[107]

On a broader scale, the introduction of mobile telecommunications in Lithuania has hugely benefited the consumers and the market economy. The prices of the monopolistic fixed-line service provider 'Lietuvos Telekomas' have been drawn down due to the increased competition from the mobile network providers. This has made 'Lietuvos Telekomas' shift its emphasis away from fixed-line service provider to Internet services, and in turn offer a greater variety of services to the consumers. This new development is showing some important signs of a healthy operating market economy in Lithuania where uncompetitive businesses are pushed away from the market or they re-specialize, and in this process, both the consumers and the producers benefit.

Some even talk of a repetition of the Irish success in Lithuania by attracting IT producers to the country. It is said that Lithuania could pave the way in mobile technologies by attracting important investors since it already has a strong base and a highly-qualified and intellectual work force. These claims have been enforced by the success of a Lithuanian mobile product manufacturer Teltonika Ltd., which exports its products to 74 different countries across the world.[108] Therefore, mobile technologies open new ways for economic development of the country.

In the UK, due to introduction of mobile phones, an increase in communication efficiency, especially at work places, is being observed. According to Mobile Life Report, almost half, 46.5%, of people who work use their mobile phone as part of their job: 24% do so regularly, and almost half of these workers say they never or hardly ever, turn their phones off. According to this report "The service society of the 21st Century is a 'talk society'. The rise of the service industry has brought about.. a constant need for quick and easy interaction with others. We

need to build relationships with customers and colleagues. We need to be flexible and the mobile allows this constant re-negotiation," says a senior lecturer at LSE, according to whom mobiles - although seen mostly as a consumer technology - is destined to have immense impact on working life. The LSE studied London black cabbies and found that many of them choose this line of work precisely because it means they are able to decide for themselves when they work. "Gone are the days of toiling away in the coal-pits or spinning in dark mills. Most of us are in the service sector selling things, delivering services and speaking to people about what they need and want, not producing things to be stored in a warehouse. For many of us the future of work is not in factories and offices but out and about where customers and colleagues are."

Support of the Public Sector

Private businesses are not the only participants in mobile welfare. Several government initiatives are also provided using mobile phones. A particular and interesting example is observed in Brazil. In Curitiba, one of the main cities in the South of Brazil, the Government provides a service for people who are interested in checking information about a car in the Brazilian Government Transport Agency. The citizen calls a free number, inputs the number of the car identification and can have information through short message services about the conditions of the car in terms of taxes payment and involvement in accidents, for example. Before buying a car, mobile phone users can have such information and make a decision on whether or not to buy a car (Conip, 2006; Carpanez, 2005). This shows clear and concise information in order to have proper negotiation in terms of pricing. Then, the use of mobile phone enables buyers to obtain information about the car and decreases the risks of unfair contracts, and consequently the transaction costs.

China benefited significantly from the rapid development of mobile technologies and the popularity of mobile applications. This is also encouraging public sector to adopt mobile technologies. Although e-Government applied into the mobile area is just in its infancy in China, some applications and trials can be seen. For instance, in Weifang City of Shandong Province, government officials can browse documents and deal with works using PDA; and citizens can submit their suggestions and opinions to 'Mayor Hotline' Short Message Centre by simply editing a text message and sending off (Wang 2006). The government information system of this kind is considered as an effective improvement of the government function, helping close up the relationship between the government and the public.

As mentioned in the previous sections, several countries make use of mobile technologies in helping public to cope with natural disasters and emergencies. These disaster alert mechanisms based on the collaboration of mobile telecom companies and local observatories assist the local governments to prepare for disasters and inform the residents. Similar implementations and policies are being developed especially in China, and India.

Social Responsibility

In addition to the initiatives from the government sectors, mobile phones popularity also facilitate and encourage the private sector to implement certain programs for the benefit of the public. Although such initiatives can be in many forms, from the examination of the selected countries a tendency to initiate activities promoting employment is frequently observed. BBC reports[109] about a regional mobile phone company Shyam Telecom that equipped about 200 rickshaws in the western state of Rajasthan with mobile phone connections, as part of the company's promotional strategy. These 'mobile payphones', which were aimed at driving up the business of the telecom company, also provided a source of employment for the poor.

Other progressive uses of mobile phones can be observed in the initiatives of the Promessa Bank of Brazil, a non-governmental organization tackling the issue of unemployment. They have generated a project to give out WAP based mobiles to the unemployed in order to find jobs by surfing the internet[110]. With such an initiative, individuals are given the capacity to look for employment.

The use of cellular as a recruitment ad-publishing platform emerged in China too. Since 2002 when Beijing Recruitment Centre launched the service of applying for jobs on mobile, there have been 20,000 job seekers subscribing it. Over 80,000 recruitment messages have been published in total, and there are 2000 people online per day (Kuang, 2003). Job hunters need to store their personal details in the Recruitment Mobile Net first, and then the job vacancy messages, which are matched with their demands and skills will be sent to subscribers' mobile through SMS in seconds, no matter where they are, whether they switch off the mobile, or whether their mobile has no signal. As soon as they switch on their phones or get the signal, the recruitment information would be displayed. Through this service, job seekers will never miss out any single recruitment information. These messages are customized and valuable to each individual phone user.

CONCLUSIONS AND DISCUSSIONS

This report presented various aspects of contributions of mobile phones to the society based on a research on selected number of countries. The report first presented a background on mobility and society for each country. Then it presented a detailed account of contributions to individual life, to the primary relations, to the society and the country together with various examples. There are various common benefits to the society whatever the country is chosen. However, there are some further benefits which stem from particular characteristics of the countries such as the demographics, distribution of the wealth and geographical conditions.

Brazil is large country with a widely distributed population. There are various differences in the demographics and geographical conditions from one place to another. The major contributions of mobile phones in this country are mainly in the areas of new business development, supporting the rural development and helping to improve green and social issues such as conservation and un-employment. An important contribution is facilitation of the initiatives of government programs and availability of these programs to many who live in the rural areas. Of course those normally observed contributions are also present including improving personal communication, strengthening family connections and increasing sociability.

The discussions in the report seem to indicate that mobile phones brings more benefits to China's society than it is imagined otherwise. Clearly, mobile phones play a significant role in personal communications, primary relations building, social networking and the country's development. SMS applications, the change of traditional festival greeting and the mobile entertainment contribute to the personal life; interacting with traditional media and mobile network games indicate a benefit to group networking; and SMS in social emergencies, information sharing and the emergence of the mobile literature show improvements to the social network communication. More importantly, China has enjoyed a rapid development of mobile technologies and mobile government at the country level.

With 3G licenses being launched soon and with the development of multimedia technologies for the hand-sets, mobile will bring even more benefits to Chinese people. We can see lots of new applications being launched recently or are coming out soon. M-Wallet will land at Chongqing this November;[111] more TV stations are trying M-TV;[112] Mobile Blog (MoBlog) mixing with music, pictures and videos are enjoying more and more popularity; positioning services and games based on the mobile Internet have attracted significant attention.[113] Obviously, 3G and advanced multimedia technologies will contribute to the power of cell phones to further influence the public and the society. It is reasonable to say that customization, localization and interaction will still be the trend of mobile phone applications. In the same way that computers and the Internet had changed our society, mobile phones will bring us more surprises and benefits.

As we have seen, for India, mobile phones have become a tool for the poor rather than making a popular perception that cell phones are associated with the rich. Most importantly, it is helping to bridge the digital divide in the country by providing relevant information such as weather forecasts, market information and increased accessibility for the rural, badly-connected areas of the country.

While the rural society is becoming irrevocably intertwined with mobile culture, the urban pockets started climbing up the value ladder with applications such as games, ring tones and music downloads taking a firm ground. Users range across all economic strata, both sexes and all age groups – from very young to the elderly - as each group discover benefits of the culture to suit their needs and benefits. While parents feel safer in sending their kids out for longer, women have started feeling more secure at nights and the elderly feel more confident stepping out alone. Mobiles have also improved organisation in all fields of life –

ranging from social gatherings to day-to-day family matters and professional business communications. For example, apart from improving employment opportunities, cell culture has proved extremely beneficial during national tragedies such as the tsunami and the Mumbai floods. It is doing its share in spreading AIDS awareness, too. While several advanced applications of mobile technology are yet to take off, the country remains hopeful of a telecom boom that is expected to set a healthy and prosperous the economy in India.

Mobile communication technology has been having a huge impact on Korean society over the last decade at the individual, social, and national levels in terms of economy, politics, culture, education, entertainment and so on. Mobile phones provide not only tangible benefits such as national economic profits, convenient daily lives and potential as a medium for democracy, but these are also suggesting a picture of the future-driven society moving towards creating and benefiting from the extremes of mobility. In other words, since 'Ubiquitous' became Korea's destination, mobile phones played a significant role in visualising a promising future to the members of the society, and in encouraging them to participate in this movement. Experts agree that mobile phones are the first gadget embedding ubiquitous technology in it, which enables and motivates people to move to the establishment of a Korean ubiquitous society (Cho, 2006).

Due to the Korean government's ICT focused policy, and a "collectivism" oriented characteristics of members of Korean society, mobile phones have been easily and significantly penetrating into the society. Many examples illustrated above and the high infiltration of mobile phones show how seriously and widely Korean society relates to and depends on mobile phones. According to a survey conducted with secondary school students, 75 percent of interviewees thought mobile phone as a necessity.[114] Another research asking about the contribution of mobile phones to convenience and happiness of their lives shows people's positive views on the influence of mobile phones in their lives.[115]

It is hard to contemplate all the ways in which mobile phones have contributed to the welfare of a Society and the Lithuanian society is no exception. But there are a few main points that should be mentioned to summarize the observed positive impact s so far.

Simply, mobile phones have changed the way people communicate. True, communication is not that personal any more, yet it is more constant, more spontaneous, more dynamic. People rely so much on mobile technologies that they build their friendships, their image, and their personality around them. It is shaping our personal space by adding

mobility and the sense of constant involvement in our lives, and in the lives of others. In Lithuania the use of mobile technologies has particularly been associated with the desire for freedom and personal independence. In a sense, a mobile phone has become the way to create that image and enjoy the idea of having control over your own life, whether it's work, leisure, or individual time.

In addition to this, mobile phones have significantly altered the nature of family relations and close friendships. It has illuminated the greatest fears of parents not being able to control and account for their children's deeds, and in this way has encouraged the maturity and self-assertiveness of young individuals. It has also granted the peace of mind for their parents, who are much more involved with their work now than they used to be, and cannot always be around in tricky situations. Having mobile phones has been equally important for building and maintaining friendships. They seem not to be that framed by space anymore as people can communicate and reach their friends even when physically they are far away. You don't have to meet anymore to share your experiences and joys – a quick chat on a mobile will do. It is much easier to let the person know you care about her with a mobile phone at hand – does not require any special arrangements, it is an easy way to express your feelings whenever you feel like it. Friends are easy to make. Maintaining them is a bit more complicated, but mobile phones take some burden off our shoulders in the task. The little gadget has drawn new trends, new fashions that people follow and discuss, our lives started revolving round them. Consequently, the interest and knowledge of modern technologies have increased dramatically because of the use of mobile phones.

But the most profound effects of applying mobile technology have been made on the social level. Not only has it become the way of expressing one's freedom, but it has also helped to introduce new concepts. In Lithuania, charity donation has become most widespread and very popular through mobile donation, providing people the sense of responsibility and involvement. On these and other occasions, like voting the basketball team, Lithuanian people seem to have been more united by their involvement in these events through their mobile phones. The asset has also quickly found ways to open up the creativeness not only of the retail companies, but the people themselves change the way they use the device in various unexpected situations, like measuring the time in a running competition. Mobile operators in Lithuania have also been very creative in the way they interpret and encourage social reaction and acceptance of mobile technologies. Though some of their initiatives are directed to leisure activities, the others dictate pioneering ways in addressing hot social issues like 'brain drain'.

The economy has become more "healthy" and more competitive due to the entrance of several operators into the Lithuanian market. Striving for the share of market has given good enough incentives to improve their services and open up windows for new business perspectives. Lithuania seems to have taken lead in some of the newest updates and initiatives, which might be the factor that would give it the advantage in the global market. To put it short then, mobile technologies have simply transformed the Lithuanian society making it more democratic, more connected, more socially-aware, more involved, more dynamic and unrestricted, and possible will be making it a leader in implementing and dictating trends in the mobile world.

As we can see, a study of mobile usage in the UK has revealed increasing reliance on the phone for all aspects of life from light-hearted dating and fun, to the more serious co-ordination of work activities and improved businesses. Besides encouraging intra-family communication, mobile phones have been seen to act as security guardians for most youngsters, adult women and aged people alike. Being used by families, friends, older population and youngsters, mobile phones are no more 'new technology'. They have become completely "ordinary", the society is even identifying 'mobile manners' for public use of mobile phones.

Despite head-on-head competition with VoIP, the use of mobile phones can be expected to grow through efficient scale-up and streamlining of technology to fill in the gaps of wireless telephony in terms of hand-set design, portability, choices of design, efficient connectivity and easier access. While the older population is seen to prefer simpler, large devices to avail of easy communication through mobile phones, adolescents favour sleek designs and office goers opt for equipment with several fringe utilities such as organizers, web browsers and calculators.

The mobile phone is essentially a communication device. Its impact on the society, however, goes beyond this original idea attributed to it. It has not only facilitated communication in our lives but influenced greater circles including business practices and the economies. As with many technologies there are *unintended consequences*. In this report, a number of positive consequences of having mobile phones in the lives of various societies are presented but the unintended consequences of adoption of mobile phones may not always be positive.

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Irena Broniukaitiene – female, 85 y., retired
Ausra Gasiuniene – female, 51 y., gynecologist
Inga Kievisaite – female, 21 y., student
Konradas Pabijanskas – male, 25 y., corporate lawyer
Ugnius Ramanauskas – male, 23 y., financial advisor
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Mobile phones have contributed to happiness in life-average value: 3.40/5.00